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EXPLORATIONS IN HITTITE ASIA MINOR—1927-28

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ORIENTAL INSTITUTE COMMUNICATIONS NO. 6

EXPLORATIONS IN HITTITE ASIA MINOR

1927-28

By
H. H. VON DER OSTEN

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CHAPTER I

INTRODUCTION

Our first year's investigations in the central part of Anatolia[1] had made so obvious the need of systematic archaeological work there that the Oriental Institute of the University of Chicago resolved to undertake a five years' campaign in central and eastern Asia Minor, once the seat of the Hittite Empire of the second millennium B.C. About the importance of this Empire and its culture much has been written within the last twenty-five years. It is unnecessary to repeat here all the different theories and problems connected with it.[2] It will suffice to recall that the power of these people was at one time strong enough to menace Egypt, to take an active part in the political life of Mesopotamia, and finally to influence Greek culture, so that many "Hittite" motives can be traced in early Greek art. But in the archaeology of these people are hidden still more important elements.

Even in prehistoric times Anatolia was one of the main distributing centers of metal in the Old World. Cultural threads radiate from it in all directions, from Turkestan to the Nile and from the Hungarian plains to Mesopotamia and the Indus Valley. And the first dim light of history to fall on this region, so important for our knowledge of the cultural development of mankind, after the darkness of prehistoric periods, reveals the early "Hittites." As important as this early period are the developments in Anatolia during the first millennium B.C., after barbarians had overthrown the Hittite Empire. But its cultural values they could not destroy; even yet, in modern rugs and other ornamental household objects of the Anatolian farmer, "Hittite" de-

[1] See the author's "Explorations in Hittite Asia Minor," *American Journal of Semitic Languages* (hereafter abbreviated to *AJSL*), XLIII (1927), 73–176, reprinted as University of Chicago, "Oriental Institute Communications" (hereafter abbreviated to *OIC*), No. 2, and his *Explorations in Central Anatolia, Season of 1926*, constituting University of Chicago, "Oriental Institute Publications" (hereafter abbreviated to *OIP*), Vol. V.

[2] Cf. *OIP*, Vol. VI (soon to appear), chap. i. See also A. Götze, "Das Hethiterreich," *Der Alte Orient*, Band XXVII, Heft 2 (1928).

signs are to be found.[1] And to some extent the Moslem population still worships at shrines of ancient Cappadocian mountain gods.[2]

During the first millennium B.C., Western peoples came for the first time into direct contact with peoples from the plains of southern Russia and from Iran. So that period witnessed the beginning of clashes between East and West which culminated for the time being in the victory of the East in this region. But traces of Western cultural influence could never be completely eradicated, and now a new wave of peaceful penetration has started from the West.

So the Hittite question has now become more than a trivial, purely scientific caprice. It has become a vital point in our understanding of our own civilization. Not as a single people nor as an isolated culture problem are the Hittites of interest to us. In them we have now to see one of the most ancient historical peoples, living for nearly a thousand years in a land which played perhaps the most important part during the earliest period of the use of metal; and in addition to their native culture we shall probably find in them survivals of still older peoples, leading us as far back as the Stone Age.

But research work in this field is most difficult for several reasons. Unlike Egypt, where for five thousand years the same culture persisted (of course with several foreign interruptions), unlike Mesopotamia, where for about the same period the old Babylonian culture continued, Asia Minor can boast of no lengthy period of relatively uniform culture. Even if we accept for the rule of the Hittites a period of a thousand years, Asia Minor was already filled with remains and survivals of various cultures and races of earlier times. Through the peninsula since the dawn of human history peoples have wandered from east to west and from west to east, destroying empires and civilizations. In this land, divided by nature into small sections surrounded by partly impassable mountains, with almost inaccessible valleys in the large mountain complexes near the coasts of the Black Sea and the Mediterranean, especially in the east, survivals of the successive cultures could find a refuge. Even yet Anatolia exhibits such a chaos

[1] Fr. Sarre, in the *Burlington Magazine*, XIV (1908), 143–47, illustrates and describes an Anatolian rug with a peculiar swastika design corresponding exactly to that on the dress of the priest-king before the god on a rock carving near Ivriz.

[2] Cf. pp. 49–51.

of diverse races and cultures that one can hardly imagine how a homogeneous empire could have existed or ever will exist here. As in the period of the Hittites and ever since, only a small group (a caste, so to speak) has held and will hold control.

These are the historical bases of research work in Hittite Asia Minor. One can realize what careful procedure is necessary to obtain a clear picture of the sequences of the various cultures and their relations to one other, how painstakingly all work must be done in such a complex territory, where cultural remains of the most diverse peoples and races lie buried one above another or still continue in local traditions or are even represented by living specimens. Only the most conscientious sectioning work is permissible, considering every detail equally important, whether it be a beautiful sculpture from the palace of a Hittite king or part of the primitive household equipment of a poor Anatolian laborer. Of course, in all this detailed recording work one must not lose sight of his fundamental aim, i.e., the great problem: Who were the Hittites, and just what was their culture? In other words, what are the Hittites in an archaeological sense?

Although the political history of the Hittite Empire is fairly well recorded in that part of its state archives which was found in 1905–7 by Hugo Winckler at Boghaz Köi, we are still in the dark from the archaeological point of view; that is, we know practically nothing about Hittite domestic civilization and its cultural relations to other peoples of the Mediterranean world. There are to be recognized, of course, even now a few threads which suggest connections with the bearers of Cretan and Mycenaean culture, with prehistoric peoples living in southern Russia, and with the cultures that flourished in northern Mesopotamia and Syria; but no precise statement could possibly be made with safety at the present time.

As yet, our archaeological clues consist mostly of sculptures, vases, and other comparatively small objects, of which we are rarely fortunate enough to know even the exact provenience. Even their *relative* chronology is obscure, since very few excavations—and these quite incomplete and mostly left unpublished—have been conducted in Anatolia. The scientific traveler who visited Asia Minor had usually one special interest, and with very few exceptions recorded only monuments and facts related to it. The topographical survey of Anatolia,

which is very important, or even fundamental, for archaeological research, is also rather poor. Excellent and valuable as the Kiepert map is,[1] it still shows too many blank spots and more or less inexact locations. It ought to be welcome news indeed, that the new Turkish government is working now on an exact triangulation of Asia Minor.

The first Oriental Institute expedition to Asia Minor, in 1926,[2] was undertaken primarily to study general conditions on the Anatolian plateau and especially to locate ancient monuments which might represent Hittite culture. For this reason the Küzül Irmak basin was chosen, as it was very likely that there, in the very heart of the Hittite Empire, more Hittite remains existed than were already known.[3] A second consideration was the desire to find a site suitable for systematic excavation. But above all came the need of gaining as clear as possible a picture of the general topographical and geographical situation, since every culture, and especially any governmental organization, is conditioned by the local geography of its region and by its geographical relationship to the lands surrounding it. The results of that first expedition included the discovery of a great number of ancient sites, of which the larger group, the so-called *hüyüks*, were undoubtedly settlements dating from the Hittite rule in Asia Minor or earlier, although later cultures had left on them their traces. They were most abundant east of Boghaz Köi in a region hitherto not observed at all. Furthermore, the subdivision of the whole territory by natural frontiers became absolutely obvious.

The next step in our researches was, of course, to choose a suitable site, one where long occupation was evident, and to excavate and record it systematically so as to obtain stratigraphically dated material. This would give us first of all a reliable relative chronology of the different types of objects. It would at the same time give information on the manner of life of these people, as well as skeletons which would permit determination of their racial affinity. The finding of written records such as coins, inscriptions, or cuneiform tablets associ-

[1] R. Kiepert, *Karte von Kleinasien*, 1:400,000 (new ed., Berlin, 1914).

[2] Cf. p. 1, n. 1.

[3] Within this large territory only two sites had been definitely identified as Hittite: Boghaz Köi and Hüyük near Aladja. The *hüyük* near Aivalü and Orta Hüyük near Dedik had been investigated but not spoken of as covering remains of the Hittite period.

ated with definite objects and structures would give us, at least in some cases, an absolute chronology. But if we succeeded merely in getting a reliable relative chronology of the different types of smaller and larger objects, it would be only a matter of time to link them up with historically known periods of Asia Minor, while we would have in any event a reliable archaeological basis for our further researches.

Besides those ancient sites easily recognizable as classical or post-classical, there are two principal types of older settlements. The first, of which I know as yet very few in the Küzül Irmak basin, is the large, stone-walled city. The great size of such sites made accumulation of thick culture deposits impossible. But most of the preclassical sites proved to be *hüyüks*. These are artificial mounds built up by superposed layers of débris from successive occupations of particular sites over a long period. We are, I believe, entitled to see in these *hüyüks* the common form of the ancient, pre-Greek settlements, that is, those of the Hittites.

The larger, walled-in towns may have been the very centers of the Empire. One such center, partly excavated, is Boghaz Köi, probably the Hittite capital. But its excavation has never been finished; and, aside from the cuneiform tablets of the Hittite state archives, only the architectural remains have been published. Pottery and other small objects from this site are still unavailable to scholars. As far as one can judge, the interest of the excavator has not been attracted very much toward this material, so important for archaeological studies, except for its plainly artistic value. Of the *hüyüks*, four had been excavated up to the present time, but all of them only partially and, with the exception of Chantre's work at Orta Hüyük near Dedik and at the *hüyük* near Aivalü, for specific purposes. For the famous Hüyük near Aladja, the remarkable sculptures of a gateway were the incentive; while the three expeditions which have dug at the Kül Tepe northeast of Kaisariyeh were attracted by the so-called "Cappadocian" cuneiform tablets which have flooded the American and European antiquity markets for the last fifty years. None of these excavations could inform us as to the structure of a *hüyük* or its cultural sequences in terms of a relative chronology of the pottery. There were two types of pottery which, though very vaguely, could be called "Hittite," since they appeared at Boghaz Köi and at Hüyük near

Aladja as well as on the Kül Tepe, if one assumes, as is likely, that each of these three sites had a Hittite settlement.

So we had to make practically a fresh start on the archaeological side. Of all the ancient sites discovered and examined in 1926, none seemed so appropriate for excavation as the large mound near the village of Alishar. While still a real *hüyük*, it had a form of which I know only one other instance in the Küzül Irmak basin—a main elevation rising from and surrounded by an oval terrace. This seemed to warrant that it was not a mere town or village, as indeed its size alone would make unlikely, but that it was a local center for the large and fertile plain surrounding it. Furthermore, it was near enough to Boghaz Köi so that we could assume that it belonged to the latter's sphere of influence. Sanitary conditions were good; for near-by springs could furnish fresh water, and the altitude made malaria impossible.

The season of 1927, then, was spent primarily in the excavation of the Alishar *hüyük*. The results were satisfactory, for we succeeded in gaining a reliable relative chronology of the pottery from Osmanli times down to a period as remote as perhaps the fourth millennium B.C. Furthermore, we found actual proof that the citadel wall on the main elevation belonged to the period of the people who had used the so-called "Hittite" hieroglyphic script. One of our most important discoveries was that of several ancient Hittite bodies, the first ever found, which may lead to identifying the race of this people. However, this is not the place to go into further detail concerning results of the excavations of 1927.[1]

Several excursions which our staff had made together during the few holidays of this first season had shown us the immense richness of remains of the various historic periods in the neighborhood of our mound. I then resolved to have its environment exactly surveyed, so as to locate all the ancient remains within an area 40 kilometers square. This would give an idea of the whole historic-geographic unit of which our mound was a small part. It would show us also its political and economic situation. So, gradually, the division of our Hittite Expedition into three separate projects took place.

First comes exploration, gaining a bird's-eye view of the general

[1] The report on our work at the Alishar *hüyük* in 1927 appear as *OIP*, Vols. VI–VII.

conditions, ancient monuments, and geographical structure of one of the large geographic units into which Asia Minor is naturally divided (Fig. 1). The explorer, having seen the various ancient sites in such a unit, makes a preliminary selection out of them, and afterward with the excavator chooses a site for the excavation. Then follows the surveyor, recording in a square 40×40 kilometers every ancient monument around the chosen site. He notes too the customs and traditions of the natives, and so completes the research work for the time being. Of course it is our ideal to have ultimately the whole of Asia Minor surveyed in this form; but this would require comparatively large funds and a numerous staff, as one man cannot possibly survey more than one such square a year.

The season of 1927 had given us a firm basis for research through the results of our excavation. We had a chance also to plan for the survey, so that we were able in 1928 to work for the first time in this threefold but united way. Dr. Erich F. Schmidt with two assistants, Ernst K. von Brand and Richard A. Martin, resumed excavation at the Alishar *hüyük;* Mr. Frank H. Blackburn made the survey of the square around it; and I myself went farther east, leaving the excavation for five weeks.

It was logical to push the exploration this year farther eastward to visit the parts of the Yeshil Irmak and Küzül Irmak basins not investigated in 1926 and to reach the Euphrates. This second exploration was to decide in which direction our work should be continued. The topography of this region and its connection with the territory already investigated in 1926 was our main interest. Our investigation showed that there was between the Euphrates basin and the Küzül Irmak basin a nearly impassable barrier. It is crossed by only one road, the ancient and still used highway between Sivas and Malatia. Even the city of Malatia and the settlements around it proved to have a different cultural basis. But Malatia seems to be a meeting place of the culture of the Küzül Irmak basin and that of Upper Mesopotamia. Arabkir and Egin, likewise both west of the Euphrates, belong to the same culture sphere as does Malatia.

Of the nearly impassable frontier between the Küzül Irmak and Euphrates basins the best illustration is the fact that in order to reach Divrighi from Egin, a direct distance of about 45 kilometers, our car,

FIG. 1.—Map showing the division of Asia Minor into units for exploration purposes

which goes anywhere, even without any road, had to make a detour of over 600 kilometers, while it took us on horseback almost two days on a practically non-existent road.[1] The variation between these two towns is unbelievable. People, language, ornaments, architecture, and other phases of life are as different as possible. A pathetic sign of this barrier is the road which Sultan Murad ordered built from Divrighi eastward. After half the distance it ends abruptly, unfinished, at the foot of a spur of the Sari Chichek Dagh. Another interesting fact is that a line of fortifications follows the northwest face of this mountain barrier: Divrighi, Odur, Gödek, Aghaya Kaleh, Koch Köprüsü Kaleh, and the *kalehs* along the Hawus Deressi.

Toward the south too the plain of Malatia is completely cut off. A very difficult road leads to Marash, where one is already in North Syria. From the Central Anatolian culture region, if we may so call the Küzül Irmak basin, the route to Marash leads by a long detour via Kaisariyeh and Adana. There is another road, again nearly impassable, from Sivas via Gürün to Albistan, each of which lies in a secluded valley. But this territory has not yet been visited by our expedition.

Very important are the frontiers limiting Central Anatolian culture on the north. In the hinterland, from approximately Uniyeh up to Batum, the ancient silver and iron region is situated. Only two natural roads lead up to its southern edge, those from Tokat to Niksar and from Sivas to Shebin Kara Hissar. From this last town also the natural route leads via Erzinjan into the high plateau of Armenia, which is very difficult to reach from Diarbekir or Kharput. This northeastern part of Asia Minor (III on map, Fig. 1) had been reached at its southern limits by our expedition of 1926; in 1928 we visited that area again. Very remarkable is the complete absence of preclassical settlements in its fertile valleys; but equally remarkable is the strong line of fortifications between Niksar and Shebin Kara Hissar, showing wall remains from very early periods down to the relatively recent Osmanli period. In the mountain ranges between this fortified line and the Black Sea coast the old mines are situated. According to the reports of natives and of the few travelers who have penetrated this region, relatively numerous fortifications constructed of large stone blocks seem to be scattered through it.

[1] Cf. p. 115.

On the map (Fig. 1) the different sections into which Asia Minor has been divided for exploration purposes are indicated. We have still to investigate southeastern Asia Minor. In that direction lies Marash, where remains of "Hittites," or at least of the people who used hieroglyphic writing, are known. The very important western part of Asia Minor has not been considered for the present. Only after our explorations are finished can we determine definitely in which direction we must continue our researches to solve the real Hittite question. South and southeast of our Hittite territory, in Palestine and Irak, other

FIG. 2.—The Alishar *hüyük*

Oriental Institute projects are under way. It may take a long time before our researches are concluded, but not until then shall we see clearly the development of our civilization since the remotest times.

In 1927 Mr. Blackburn and I left the United States in March and reported to Dr. Breasted, the director of the Oriental Institute, in Cairo. There it was finally resolved that we should start excavations at the Alishar *hüyük*. Dr. Erich F. Schmidt, of the American Museum of Natural History in New York City, joined us in the middle of May at Ankara. On May 27 our preparations were finished and the actual excavation of the Alishar *hüyük* started (Fig. 2). Six months we worked there in the field (Fig. 3), followed by three weeks in Ankara. Then we went again to Egypt to report to Dr. Breasted and to visit the Oriental Institute expeditions at work in Cairo and Luxor. In Febru-

ary, 1928, we returned to the United States. On March 7, Mr. Blackburn left again for Istanbul. At the end of April our two new assistants, Messrs. Martin and von Brand, left also for the East. In the middle of May, Dr. Schmidt and I sailed from the United States.

We were all cordially received by the Turkish officials, who again did all that was in their power to facilitate our work. It is to me an agreeable duty to express here my gratitude for the kind co-operation rendered by His Excellency Nedjati Bey, the late Minister of Public Instruction; His Excellency Schukri Kaya Bey, the Minister of the Interior; and all the officials of these two ministries. We were only

FIG. 3.—The Alishar *hüyük*. Excavation of the citadel wall on summit of main mound.

too glad to have Sherafeddin Bey, our commissioner of last year, again appointed to the same position. The American embassy, especially Mr. Jefferson Patterson and Malik Bey, helped us in 1928 in the same cordial way as during the previous two seasons. We are also particularly grateful to Professor Julius von Mészáros and Dr. Hamid Bey, of the Ethnological Museum in Ankara, for looking after our material obtained during the season of 1927.

We had the great pleasure of having Professor von Mészáros for a few weeks as our guest at Alishar, and I was only too glad to have him accompany me in my explorations. The many evening hours we spent in discussing ethnological and linguistic problems of Asia Minor are invaluable memories to me. We had also the pleasure of receiving as guests Mr. Paul E. Nilson and Dr. Clark, of the American School in

Talas; Professor Eugène Pittard, of the University of Geneva; and Professor Ernest Mamboury, of the University of Istanbul. Dr. Forsteneichner, of the Phytopathological Institute in Ankara, also stayed with us for several weeks while studying the flora of the neighborhood. The local Turkish authorities again showed the greatest interest and helpfulness in our work. Twice we had the pleasure of having His Excellency the Governor General of the *vilayet* of Yozgad as our guest.

Mr. Josef Reifenmüller, our superintendent of the previous year, Mr. J. Scharer, the carpenter of the previous year, Mr. Garcenot, as cook, and my faithful chauffeur, Hüssein, who has been with us since the beginning, completed the staff of the expedition in 1928. To all the members of the expedition I wish to express again here my cordial thanks for their co-operation and mutual understanding, as without the accomplishment of their often difficult tasks we could not have succeeded in carrying out our program.

CHAPTER II

THE SEASON OF 1927

The main work of this season centered around the excavation of the large mound near Alishar (Figs. 2 and 3). The exploration of 1926 had shown that, at least in the Küzül Irmak basin, the most densely populated territory lay east of Boghaz Köi, which was almost certainly the Hittite capital. This was a rather surprising fact, as usually in ancient times capitals were centrally located. But while Boghaz Köi occupied more the position of a very large border city at the northwest corner of the most populous section of the Küzül Irmak basin, yet, considering as a unit the whole area probably controlled by the Hittite Empire, hardly a more central position for its capital could be imagined. The Alishar *hüyük*, on the other hand, is situated in the heart of a very large group of settlements in the fertile plains and valleys of the eastern Konak Su basin, the largest tributary of the Küzül Irmak. There are very few *hüyüks* in the whole of the Küzül Irmak basin which can compare in size with this mound, and only one with its particular form. It consists of an oval terrace between 7 and 9 meters high, in the middle of which an elevation, surely the castle of the settlement, rises 24 meters above the terrace. This first season's excavations, which gave us in cross-section a picture of the various cultures that had successively held sway here during the colorful history of Anatolia, showed that the site had been occupied consecutively for approximately six thousand years. The work began here following three weeks' preparation in Ankara and at the spot itself (Figs. 4 and 5).

As we came to realize the immense richness of the neighborhood in ancient monuments, most of them wholly unknown, the plan for our third project, the survey, was conceived. A 40-kilometer square was laid out with the Alishar *hüyük* approximately at its center. The Kiepert map proved absolutely insufficient; so we had to make our own survey. The importance of this work becomes perhaps most readily intelligible if one compares the three maps here shown. The

FIG. 4.—Camp of the expedition

FIG. 5.—The staff of 1927

first is copied from the Kiepert map (Fig. 6); the second is our original rough survey with indication of the monuments noticed at that time (Fig. 7). The third shows one finished quarter of the same area, after every village and every monument had been recorded (Fig. 8). No

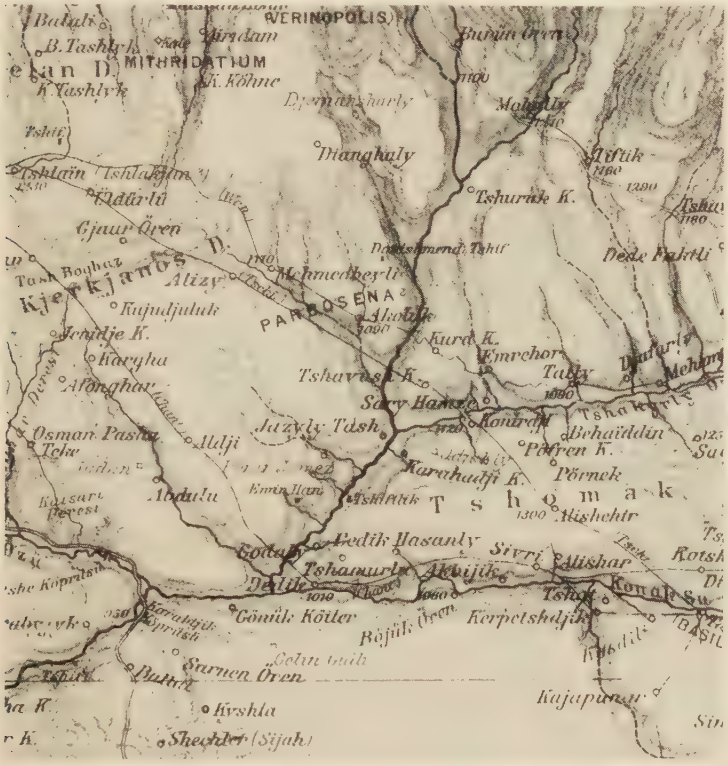


FIG. 6.—The 40-kilometer square area around Alishar, from Kiepert's *Karte von Kleinasien* (Berlin, 1914).

village is too small and no fragment of an ancient monument too unimportant to be noted, regardless of its date, be it Hittite or Seljuk. On every trip, even to Terzili Hammam, the natural hot springs where members of the expedition used to bathe, or to Yozgad, where we obtained bread, we kept discovering new ancient settlements or tumuli. For each village or monument a special sheet is made out. Of all inscriptions copies are taken (Fig. 9), and all ancient sites and

caves are measured and surveyed (Fig. 10). The material so collected will be described in publications to follow. Interpretation can come

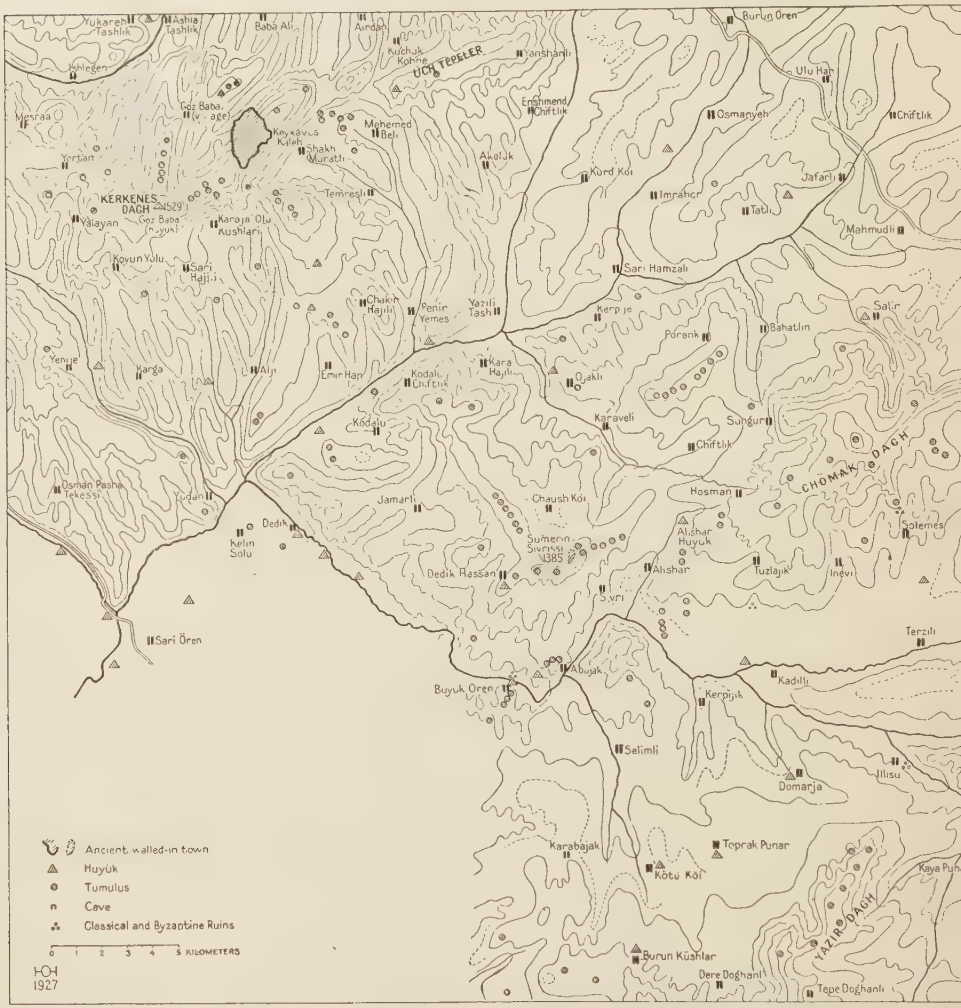


FIG. 7.—The same area shown in Figure 6, as surveyed during 1927

later; just now it is fundamental to preserve a record of these fast-disappearing monuments of older times.

In the course of 1927 Mr. Blackburn and I surveyed the large site on the Kerkenes Dagh, also the smaller *kaleh* on the Sumerin Sivrissi,

at the foot of which our Alishar *hüyük* is situated. Both lie within our Alishar square. On the Kerkenes Dagh, perhaps the largest pre-Greek site of eastern Anatolia is situated (Fig. 11).[1] A huge wall 7.5

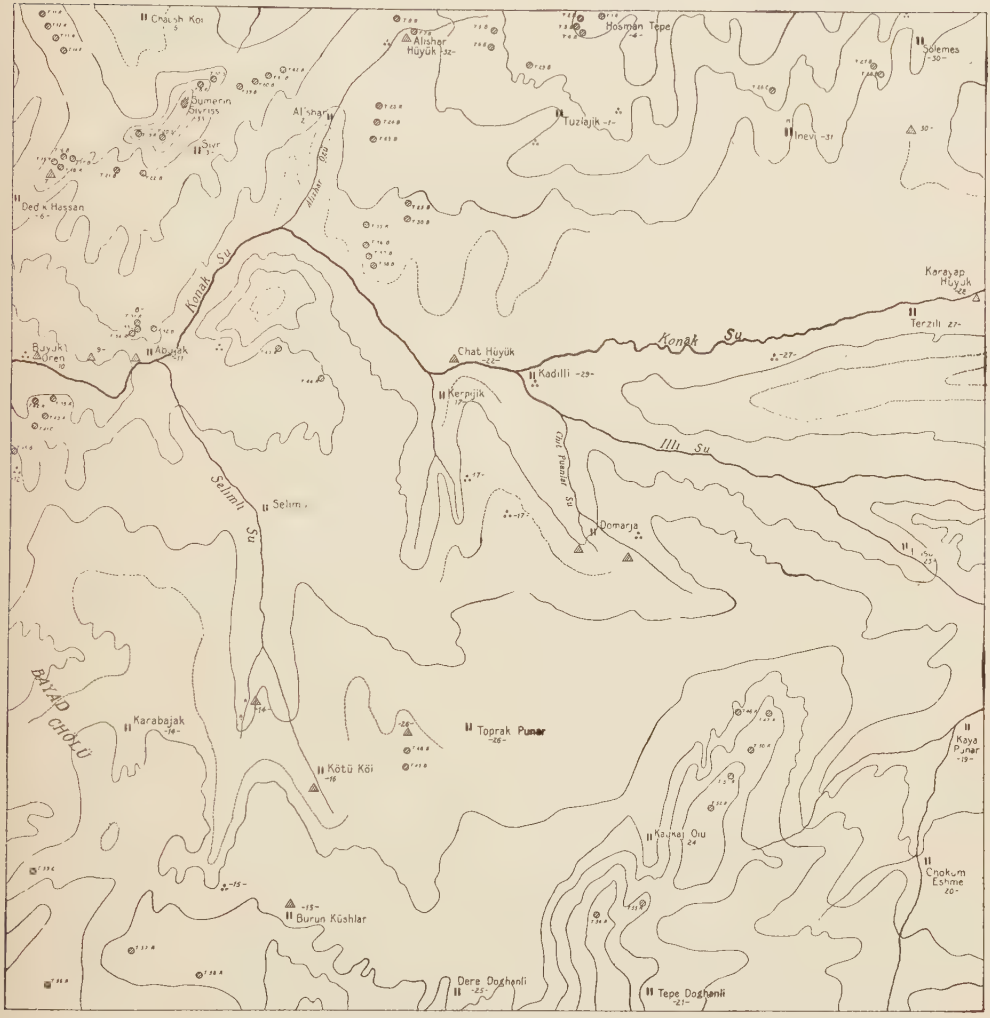


FIG. 8.—One quarter (Section 1) of the area shown in Figures 6 and 7, as surveyed in detail during 1928.

[1] Cf. *OIC*, No. 2, p. 34, and the author's article in the *Geographical Review*, XVIII (1928), 83–92.

kilometers long incloses a space nearly 2.5×1.5 kilometers (Figs. 12 and 13). One cannot without rashness make even a guess as to its origin, history, or name. Though the *kaleh* on the Sumerin Sivrissi is much smaller (Fig. 14), the scanty remains of its walls (the main part of the construction had tumbled down the steep slopes) seem to show an affinity to those on the Kerkenes Dagh.

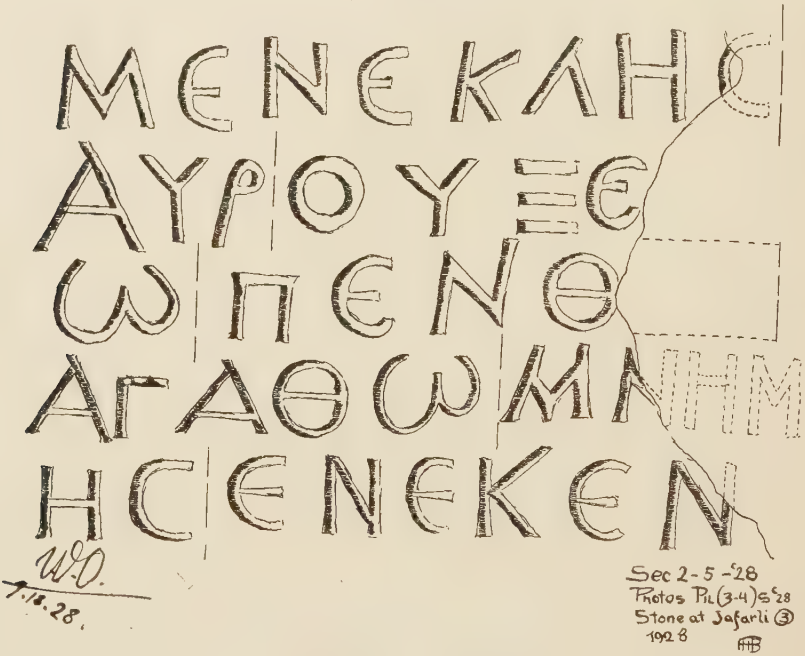


FIG. 9.—An inscription, as copied during the survey

Besides frequent short trips within the square to be surveyed, each resulting in interesting discoveries and observations, four longer excursions were made. The first, on June 17, took us southward to Boghazlayan. This town lies in the center of a group of settlements south of the Alishar *hüyük* and separated from it by the high ranges of the Yazir Dagh. As already stated, the Küzül Irmak basin is divided by nature into a few large districts which are in turn again divided. We have to deal here in particular with the large district formed by the Delidje–Konak Su basin. Its western part, except for the north slopes of the mountains that divide it from the Küzül Irmak valley and for

a few settlements on the west, south, and east slopes of the Chichek Dagh, seems to have been very sparsely populated in ancient times. The first rather large group of settlements appears around Yerköi; the second and largest occupies the fertile plains and plateaus around Alishar; and a third group, including the Kara Su basin, the largest

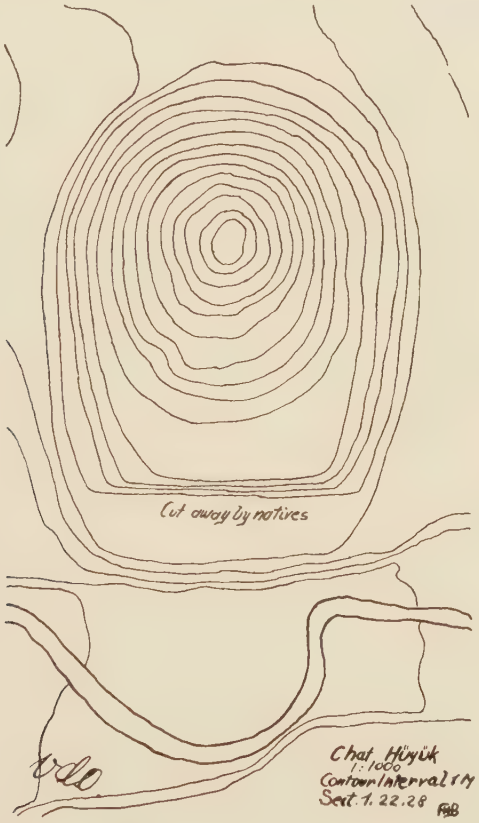


FIG. 10.—Map of a *hüyük*. Scale, as reduced in publication, 1:2000

tributary of the Konak Su, centers around Boghazlayan. This last region I had seen only along its western border in 1926, while on the way from Jiblakh to Kaisariyeh. So I seized with great pleasure the opportunity to make an excursion to the center of this territory on the occasion of a visit from the Director of Education of Yozgad, who wanted to go to Boghazlayan.

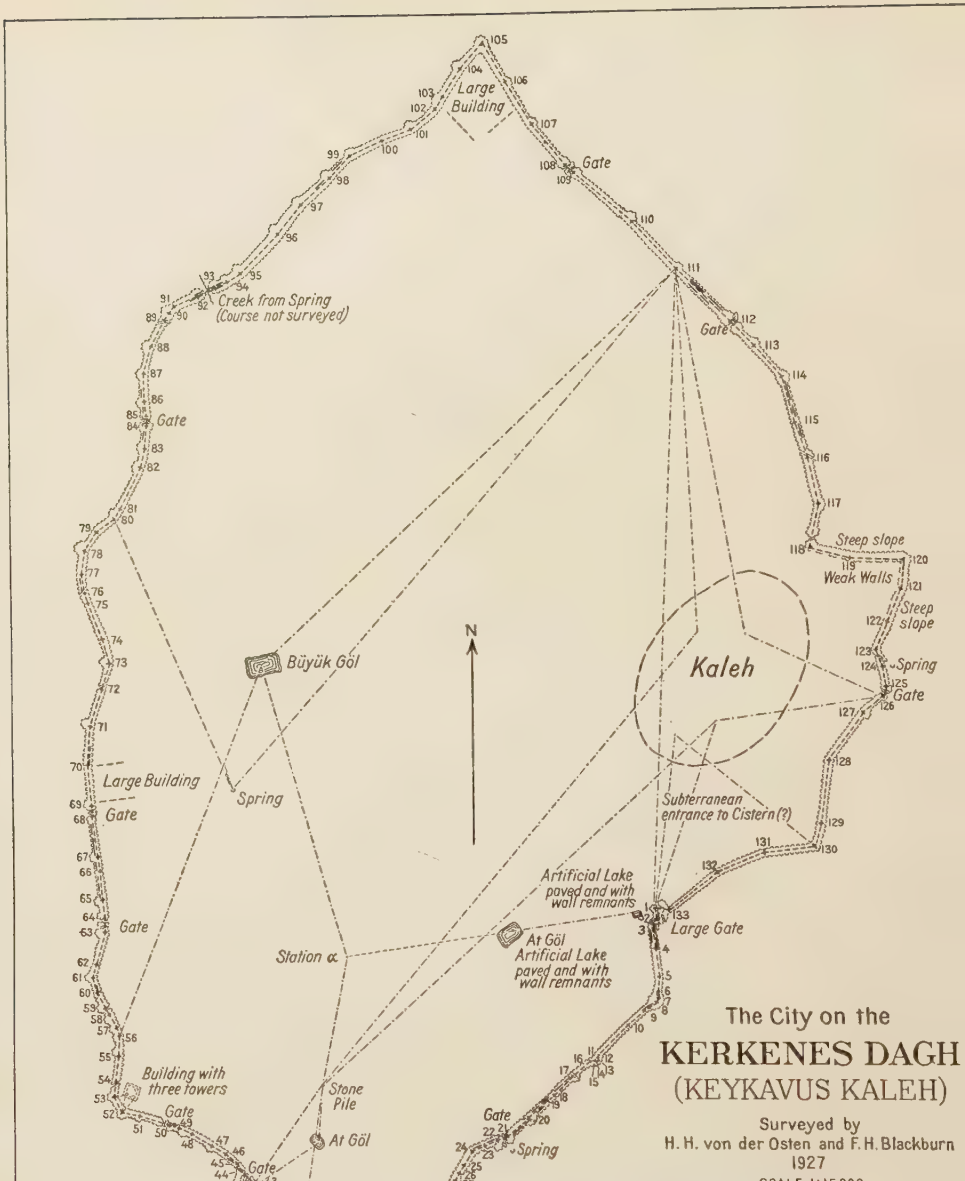


FIG. 11.—Map of the city on the Kerkenes Dagh. Adapted from the *Geographical Revie* XVIII (1928), published by the American Geographical Society of New York.

We crossed the southern part of our survey square to Burun Küshlar, visiting the antiquities in the various villages on the way. Especially in Selimli I noticed a great quantity of late classical stone-

FIG. 12.—The Kerkenes Dagh city. A detail of the inclosure wall

FIG. 13.—Our surveying party on the Kerkenes Dagh

work with parts of columns. Farther on, we saw to the west a number of caves in the face of a low cliff of soft limestone. At Burun Küshlar itself, situated on the north slope of the Yazir Dagh, is a very large,

steep *hüyük*. Pottery fragments on the surface were chiefly of *terra sigillata;* probably the top had been flattened during the Roman period and a military settlement established here. The village itself is an old Armenian settlement, now inhabited by *muhajirs* from Macedonia. A number of tumuli appear not far from the village on spurs of the Yazir Dagh. Halfway up to the pass we saw near Sari Kaya a small *hüyük*. At Parasli, a large and clean Cherkess settlement, we reached the main road between Yozgad and Kaisariyeh. In the plain extending westward toward the Kara Su valley I saw about 3 kilometers distant a very large *hüyük*. The road ascended in steep hairpin curves

FIG. 14.—The Sumerin Sivrissi. The *kaleh* extends between the lines marked

the last elevation, over which were dispersed five very large tumuli. From this elevation one has a dominating view over the large group of settlements north and northeastward around Alishar, as well as southward over the fertile plain in the midst of which Boghazlayan is situated; while far to the southeast appears, phantom-like, the majestic pyramid of the Erjas Dagh (Mount Argaeus of the ancients). Especially remarkable were the numbers of tumuli appearing on top of almost every prominent elevation.

Around the town of Boghazlayan are no less than four *hüyüks*. The *kaimakam* told us that in a near-by village there were said to be two hieroglyphic inscriptions on stones. A drive of twenty minutes brought us to the town of Chalab Verdi. It is situated on the northeast slope of a natural elevation which rises steeply on all sides. Its

top, a sort of plateau with several smaller elevations, proved to have been settled in ancient times; part of even the inclosure could be traced. Its surface was covered with numberless pottery fragments. Sherds of our Alishar Periods I and III predominated. The approximate size of the settlement is about 600×300 meters. Its excavation would surely be of great interest, but from the technical point of view rather difficult to undertake. In the village itself I saw the two very

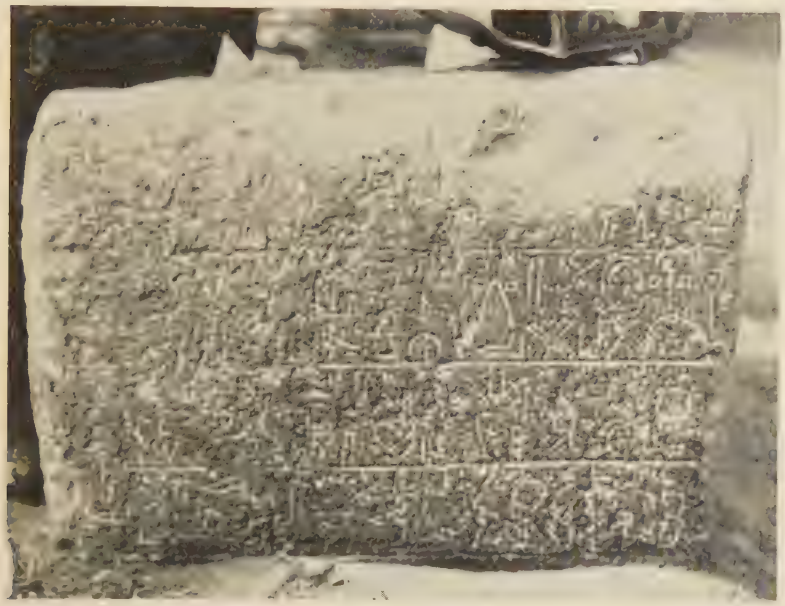


FIG. 15.—Inscription A at Chalab Verdi

well-preserved "Hittite" hieroglyphic inscriptions of which we had been told. I had thought them previously unknown, but a few months later I learned from Dr. E. Forrer that he had noticed them already in 1926.[1] Each of these inscriptions (Figs. 15 and 16) is engraved on one side of a huge rectangular stone block. Following another route "homeward," I visited a huge ancient settlement on a natural rock elevation at Yoghun Hissar. The village itself shows a great number of worked stones of various periods. From Terzili Hammam, after a refreshing bath in the basin of the Roman *thermae*, we reached our camp in about twenty minutes.

[1] Forrer in *Mitteilungen der Deutschen Orient-Gesellschaft*, No. 65 (1927), p. 36.

On August 26, Dr. Schmidt and I made an exploration around the Chomak Dagh, near the southwest end of which the Alishar *hüyük* is situated. It is a rather large complex of fairly high elevations grouped around a high plateau, the whole sloping gently downward on all sides; nearly all the prominent elevations bear tumuli. Two of these are even now worshiped as *ziarets*.[1] This mountain mass is connected on

FIG. 16.—Inscription B at Chalab Verdi

the east by a broad, gently undulated saddle with the Kochas Dagh. The latter belongs to the east-west chain bounding on the north the extremely fertile valley through which the Konak Su flows after it emerges from the rugged Ak Dagh. All around the slopes of the Chomak Dagh are ancient settlements. Especially remarkable are the very large *hüyük* near Salir (Fig. 17) and two quite large classical or postclassical settlements near Tuzlajik and Sölemes. The plateau of the Chomak Dagh and its western slopes are covered, in parts very

[1] Sacred spots (usually with trees or stones) now associated with burials of Moslem saints. Cf. pp. 49 and 110 and *OIP*, V, 69.

thickly, with scrub oaks, suggesting that it has been covered previously with real woods. The more closely one approaches the Ak Dagh, the more frequent become scrub-covered mountain tops and slopes; but the predominating picture is still of plains and slopes covered with wheat fields or grayish steppe grass, with groups of dark green trees around the villages or along the watercourses, especially along the Konak Su. Bed rock often crops out on the highest elevations or on the steepest slopes, where the soil has been washed away. This is the typical landscape for the northern part of the Konak Su valley.

FIG. 17.—The *hüyük* at Salir

After visiting the very large Kushakli Hüyük near Chikrikche, we ascended the north slope of the valley. Not far from Kochas we found a rock tomb (Figs. 18 and 19) with a Greek inscription. Northward the just-described mountain ranges slope but slightly down toward a plateau through which runs the old road from Yozgad to Sivas. This plateau really forms the watershed between the Küzül Irmak and Yeshil Irmak basins. South of the road at one point is a complex of fairly high rocks with steep slopes, but elsewhere the slope of the mountain ranges is gently undulated. Numerous artificial caves appear, some of them not to be reached without ladders. The few which I could investigate showed a rectangular plan and were slightly vaulted. Some of them at least were surely tombs.

We crossed the plateau toward its northern end, where Kara Maghara is situated. Around a detached cliff with a very old *kaleh* on it, the fair-sized, prosperous town is situated. It has a very fine

FIG. 18.—Rock tomb near Kochas

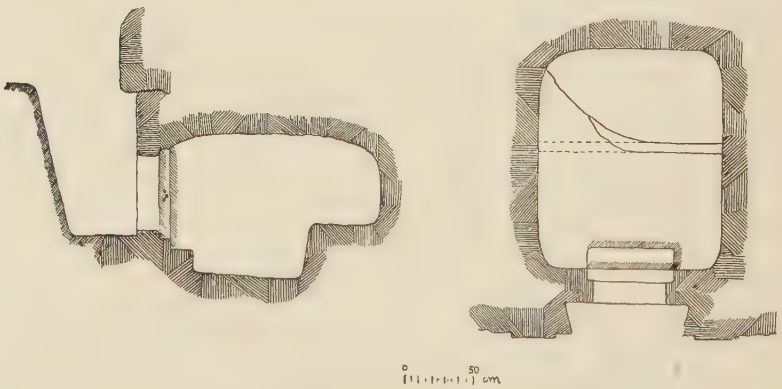
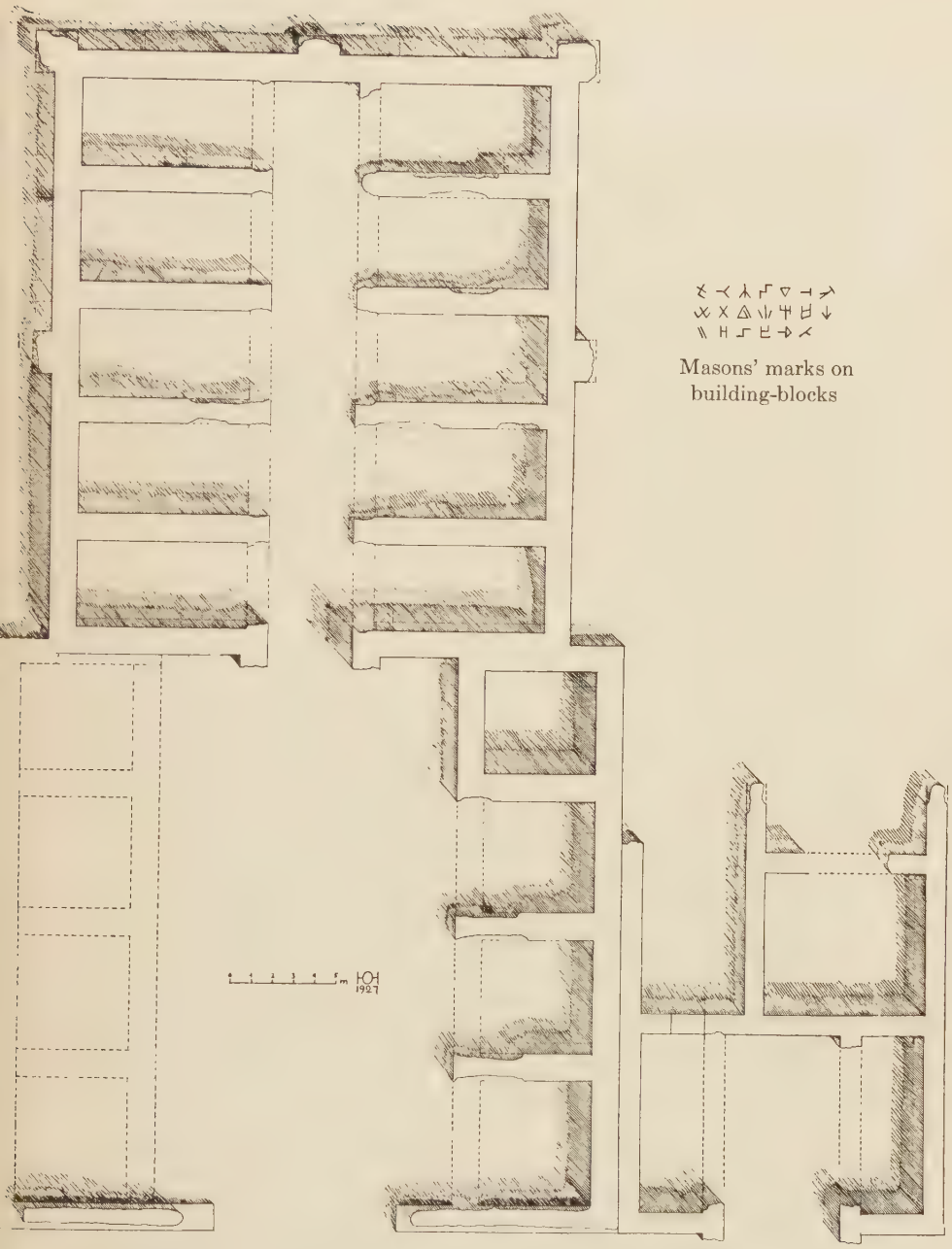


FIG. 19.—Rock tomb near Kochas. Section and plan

jami with beautiful *kelims*. Built into the wall is a Seljuk inscription which the natives told us came from a *han* situated 6 kilometers farther northward. We went up there and found the imposing remains of a very large Seljuk *han* (Fig. 20). Through this valley seems to have



Masons' marks on building-blocks

FIG. 20.—Jimjimli Sultan Han near Kara Maghara. Plan

led an old road to Zileh. The *han* itself shows the typical Seljuk plan: a large rectangular courtyard with a number of rooms on both sides

FIG. 21.—Jimjimli Sultan Han near Kara Maghara

FIG. 22.—Jimjimli Sultan Han near Kara Maghara

precedes the main building, also a large rectangle, with symmetrically arranged vaulted rooms along its walls (Figs. 21 and 22). Not a single piece of the surely richly decorated entrance façade was preserved.

The walls of the main building, preserved in part to their original height, seem to have been built up on each face with large rectangular blocks of stone, while the space between had been filled in with smaller stones imbedded in mortar. Natives from the near-by settlements had taken out the large blocks as far as they could reach and had used them for their own homes. So the wall has now a very singular aspect. The kernel of the wall is preserved, but only the three or four uppermost rows of large blocks are still *in situ*. Leaning against one wall of the rectangular courtyard, a second building with a number of vaulted rooms appears, but at a lower level than the actual *han*. It seems possible that this building, which shows also a different type of wall, belongs to the Byzantine period. A Byzantine Greek inscription (Fig. 23) now in the town of Kara Maghara is said to have come from this building. A third, but differently oriented, building at the right is now completely in ruins and covered up. The natives say that underneath it is a natural hot spring which flows only during the three spring months of each year.

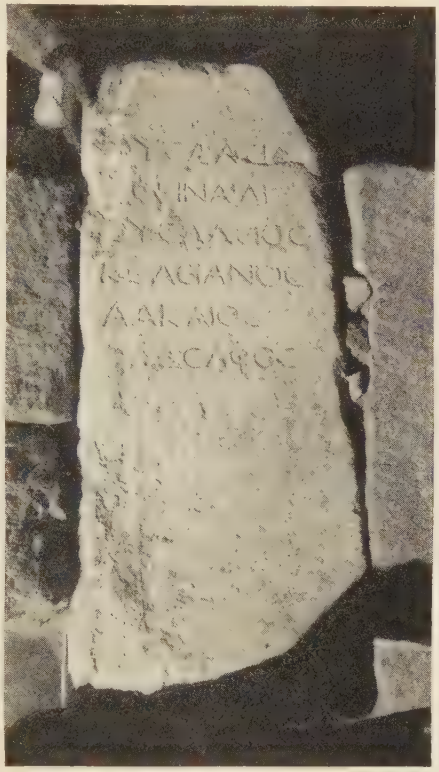


FIG. 23.—Greek inscription now at Kara Maghara.

On September 10, I made a third excursion, this time up the Konak Su valley itself to the spot where it emerges from the Ak Dagh complex. Different from the northern part of the valley is the southern part of it. There comes first a rather level stretch of fertile soil, then a steep, steplike slope sandy and bare of any sign of vegetation. From its upper edge extends a plateau fairly level and divided only by a few

gently undulated incisions. At its southeastern and southwestern extremities it slopes up toward the complexes of the Ak Dagh and the Yazir Dagh respectively. Between Karayap and Asap Bashli I did not notice anything particularly interesting aside from a few small tumuli within the valley. Behind Asap Bashli a very steep spur of the Ak Dagh forms the eastern limit of the Konak Su valley. South of it the Konak Su emerges from a narrow, steep, and rocky defile; north of it, out of a similar one, flows a tributary. The two streams unite just west of this spur at Asap Bashli. On the spur is situated a very large conical tumulus, not far from which stand the remains of a rectangular fortress. From this place one has a splendid view over the whole plain extending westward toward the Sumerin Sivrissi. Through its midst winds the Konak Su, bordered by trees and gardens near villages. On the north the valley slopes gently upward, every corner covered by wheat fields; on the south it is bounded by the above-described steplike formation. The *kaleh* or fortress on the mountain shows a wall now consisting of a large girdle of stones. Places where the outer and inner faces of its upper part are both preserved show a width of 1.50–2 meters. It seems to have been constructed on a paved embankment similar to that found at Kerkenes Dagh. At all four corners appear large tower constructions. Without "cleaning," no gateways are to be seen. The length of each side is 76 meters, measured along the middle of the talus. On the inclosed surface, remains of several buildings are to be recognized.

On the west slope of the spur, furthermore, are the ruins of a small, vaulted Byzantine building. The village itself is full of architectural fragments and inscriptions, some of them very interesting. The nearest two villages, Meshidli and Gündüslü, are likewise well supplied with fragments from classical or preclassical buildings. At Gündüslü I saw a block, unfortunately very badly preserved, with two *Nikes* facing each other and between them a *tropaion*. In a northern lateral valley, around a medium-sized *hüyük*, the buildings of the modern village of Djelal are grouped. A little farther down this valley toward the Konak Su I noticed in the village of Hasbeg two badly preserved inscriptions re-used in walls.

My fourth and last rather long excursion also approached the Ak Dagh, but this time along the plateau south of the Konak Su. I fol-

lowed first our old road to Terzili Hammam. At Karayap I noticed a very fine fragment of a Roman architrave and arranged to have it shipped to Ankara. Karayap had been formerly a large Armenian settlement. It is now inhabited by a mixture of all the racial elements living in the *vilayet* of Yozgad: Turks, *muhajirs* from the Balkans, Cherkess, Tatars, Kurds, and Armenians. Of the richly decorated Armenian church, much still remains. During our weekly visit to Terzili Hammam the inhabitants had spoken of a wall, probably a city inclosure. In spite of very careful investigation, all that I could discover of it was a trench 4 meters wide, 3 meters deep, and 10–12 meters long, where the natives had dug for building-stones. In continuation of this trench a stripe of lighter-colored grass 4 meters wide and perhaps 400 meters long could be noticed in the surrounding meadow. E. Chantre, who visited this place in 1893–94, reported traces of a city wall 3 meters wide and 3 kilometers long.

From Terzili we first followed the Boghazlayan road to Kaya Punar, a Cherkess settlement. Then turning eastward, we went up the plateau, which is here arid, with no vegetation except steppe grass. After 35 kilometers it slopes downward. In a relatively fertile valley I noticed two very large *hüyüks* near Karahali. From Babayamur, a large village with well-cared-for vineyards, the road ascends a north-south mountain range on the top of which, not far from the road, a very large *hüyük* (Are Hüyük, "the mound of pains") is situated. In the valley on the other side of this range appears a small *kaleh* on a detached cliff encircled by the small village of Khorkadan.

After crossing a second range, the rocky surface of which was partly covered with scrub, we reached a small but extremely fertile valley inclosed on all sides. It was bounded on the east by one of the main peaks of the Ak Dagh, a bare, white rock formation emerging from a mass of higher and lower peaks all covered with pines and other trees. In the middle of the valley is situated Cha'ir Shehir, surrounded by large groups of trees (Fig. 24). It contains a small mosque with very fine Sivas *kelims*. But much more interesting is a *türbeh* of early Osmanli times (Figs. 25 and 26). It consists of a quadrangular substructure on which stands an octagonal tower with vaulted roof. Three steps lead down to a cross-vaulted room within the substructure; and eight smaller ones, symmetrically arranged, four on each

side, lead up to a richly decorated door which forms the entrance to the large room within the octagonal upper part. There was no clue as to its founder. Only a secondary inscription told of its restoration

FIG. 24.—The valley of Cha'ir Shehir

FIG. 25.—The *türbeh* at Cha'ir Shehir

some seventy-five years ago. Our way back led us through a southern lateral valley of the Konak Su, where I noticed two medium-sized *hüyüks* near Kongurlu and Meles.

These four trips had shown the immediate surroundings of our survey square eastward and had especially confirmed to me the importance of the whole eastern Konak Su basin as a settlement dis-

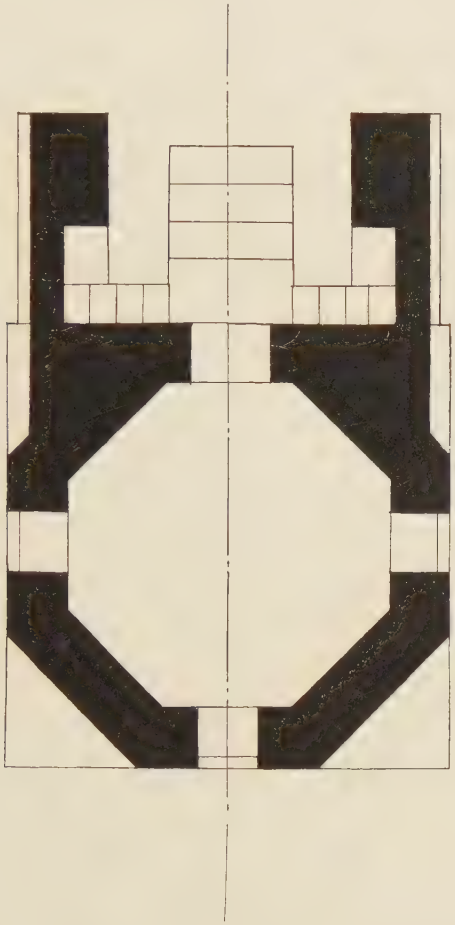


FIG. 26.—The *türbeh* at Cha'ir Shehir. Plan. Scale, 1:100

trict during the Hittite period. During 1927 about a dozen shorter trips within the square to be surveyed were made by either Mr. Blackburn or myself. The whole square around Alishar was finished in 1928, and we hope soon to present this material in complete form.

As to the excavations at the Alishar *hüyük* itself, their main result,

as already stated, was to establish the relative chronology of the pottery. We gave the various groups temporary numbers according to their sequence. The oldest ware, that of Period I, consists mostly of highly polished, red-slipped specimens; the paste is plant-tempered. We found also in the very deepest plot one fragment of pottery which belongs most probably to the still older Neolithic period. Period II yielded a fine yellowish ware, micaceous, with triangular handles, and mostly with pointed bottom. The large Period III group includes all the painted specimens. During the 1927 season we were not able to make definite subdivisions, even though we could distinguish between an earlier and a later ware. Part of the earlier Period III ware was found associated with "Hittite" hieroglyphic bullae. We found also, of course, still later wares: Roman, Byzantine, and Turkish. Besides the pottery, numerous small objects were uncovered, including some very fine seal stones.[1] Most of the objects are now in the Hittite Hall of the Ethnological Museum at Ankara. A good study collection was presented by the Turkish government to the Oriental Institute.

[1] Cf. *OIP*, Vol. VII (to be published).

CHAPTER III

THE SEASON OF 1928

For the season of 1928 a region as large as that explored in 1926 and bordering it on the east was selected for exploration (Fig. 27). Contrary, however, to our procedure in 1926, the new territory was not chosen on account of being a geographical unit. In fact, its whole topography is rather very little known, and from the available maps one could form only a vague picture of its structure. Very roughly expressed, it includes the mountains and plains between the upper Küzül Irmak and the upper Euphrates, exclusive of the mountain ranges south of the Black Sea. The investigated territory is approximately bounded on the west by a line passing through Niksar, Tokat, Yeni Han, and Gemerek (on the Sivas-Kaisariyeh road); on the south by a line through Gemerek, Gürün, Derende, and Malatia; on the east and northeast by the Euphrates from near Malatia up to Egin and by a line from this city to Shebin Kara Hissar; and finally on the north by the Kelkid Irmak down to Niksar.

I applied in Ankara for the traveling permit. Until it was granted, which took a little time, since a few districts I wanted to visit were still under special laws, I stayed at our camp at Alishar. I arrived there on June 1, together with Dr. Schmidt and with Dr. Forsteneichner, of the Phytopathological Insitute in Ankara. We were met by our assistants, Messrs. Blackburn, Martin, and von Brand, Mr. Reifenmüller, and our old workmen. The camp was in excellent order, new barracks had been constructed to give more room and working facilities, and our old house of last year had been repainted (Fig. 28). We were delighted to find our excavation exactly as we had left it last year, thanks to the loyalty and care of our guard, an old workman, and the gendarmery commander of Köhne, Hadji Bekir Bey, who had come over twice a month during the winter to see that everything was taken care of. There was still dump soil from last year to be removed from certain spots on the main mound. As our field railroad did not arrive until later (Fig. 29), this work progressed rather slowly, so that we could not start excavating again until June 12.

During this time we made two exploratory trips. On the first one, of two days, I was accompanied by Dr. Schmidt, Sherafeddin Bey, our

FIG. 28.—The Alishar camp in 1928

FIG. 29.—Arrival of our field railroad at Alishar

commissioner of the preceding year, whom we were only too glad to receive again, and Messrs. Martin and von Brand. We went first on

FIG. 27.—Map show

26, 1927, and 1928

routes well known to us (Fig. 30) up to Köhne, passing the Kerkenes Dagh. From Köhne we followed the ancient main road leading to Yozgad. We stopped at the large *hüyük* north of Küchük Köhne which I had already seen in 1926 but had not investigated (Fig. 31). This *hüyük* has approximately the same form as our Alishar *hüyük*, but on its lower terrace occur the remains of a gateway construction built

FIG. 30.—On the "road" to Köhne

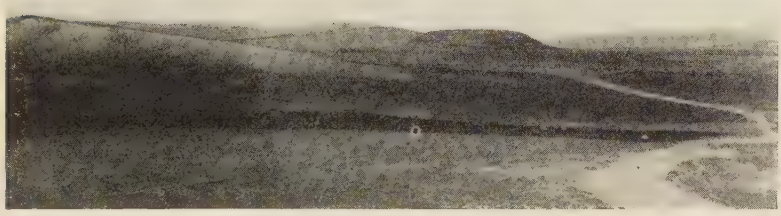


FIG. 31.—The *hüyük* near Küchük Köhne

of large stone blocks (Fig. 32). This had already been noticed by Dr. E. Forrer, who investigated the *hüyük* in September, 1926.[1] In Yozgad (Fig. 33) we paid a visit to the *vali*, who received us very cordially and promised, as in the previous year, all help and assistance, which was indeed given to us in the most generous manner. From Yozgad we went northwestward up an old road following the south slope of the Toprak Tepe. The view was most beautiful, but the road rather

[1] Forrer, *op. cit.*, p. 33.

dangerous, especially as the car once started to slide backward. The large mountain range of the Toprak Tepe, consisting of sedimentary rocks, especially white limestone with clay and sand layers of various colors, is nearly void of vegetation on this side. Toward the south, where the Konak Su valley lies, is a desolate landscape of irregular mountain ranges torn by deep ravines, mostly with dry river beds. Only rarely can one see a few trees like black spots near small, dust-covered villages.

FIG. 32.—Gateway foundations on the *hüyük* near Küchük Köhne

Crossing the secondary watershed dividing the Delidje–Konak Su basin from that of a tributary, the Budak Özü Chai, the landscape changes abruptly. Small trees and scrub appear on the slope; in the valley lie meadows and wheat fields. Before reaching Dervent Köi we saw two small *hüyüks*.[1] In the village itself a large Byzantine stone with a cross, perhaps an old baptismal font (Fig. 34), is now used by the natives to crush the wheat for one of their main dishes, *bulgur*. Just beyond this village the valley narrows into a real gorge. On right and left picturesque rock formations rise higher and higher, to end abruptly, and the gorge opens without any transition into the large, fertile plain extending to Sungurlu. At this point, on the southwest

[1] Cf Götze in *Archiv für Orientforschung*, IV (1927), 24.

side, Boghaz Köi is situated. For 2 kilometers we rode at the foot of the rock wall on the crest of which, about 160 meters above us, rose the east wall of Boghaz Köi. Clearly we could distinguish the silhouette of the "king's gate" standing out against the setting sun. At the end of the gorge we ascended the steep slope of Büyük Kaya, an outer fortification of the ancient city, and had an unforgettable view of the whole territory.

That evening we gave way to our sentiments and tried to reconstruct the fierce last struggle of Hittite warriors and their king in the

FIG. 33.—Yozgad. The bazaar

main fortress, the Büyük Kaleh, with barbaric hosts destroying and plundering the lower city and pressing hard the remaining Hittite warriors, who continued their hopeless stand in the five citadels of the capital until they also were overpowered, outnumbered perhaps a hundred fold by the enemy. We felt as though on a sacred place, and it was for us all more a pilgrimage than a purely scientific expedition. Buried there perhaps lay with their princes the last defenders of the culture which we are trying to unearth and to reconstruct. Through

that city's gates the embassies of Egyptian pharaohs and of Babylonian kings had passed within the walls while the hundreds of wall towers and the large palaces teemed with warriors. And now all is covered by steppe grass, a few wheat fields, and scrubby trees (Fig. 35). The few trenches of the former excavations[1] are scarcely noticeable. Only unwillingly did we leave this place and come back to reality. But the sun was gone, and we had to speed up so as to reach the village before complete darkness, as the road is very bad and difficult. Osman Bey, the oldest son of our old

FIG. 34.—Byzantine stone at Dervent Köi.

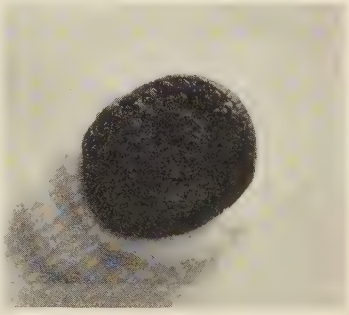


FIG. 35.—Seal impression in clay, found at Boghaz Köi.

friend, Zia Bey, received us most cordially. After a beautiful evening, we too had to put up a fight against a host outnumbering us perhaps fifty or more to one, till we fell overtired to sleep.

The next morning we went up to the city and studied the walls and building remains (Figs. 36 and 37). Toward noon we said goodbye to our host, and after a visit to Yazili Kaya we continued on our road toward Hüyük.[2] Again we followed another road than that which I had traveled in 1926. It proved quite worth while; for near the village

[1] O. Puchstein, H. Kohl, and D. Krencker, *Boghasköi, die Bauwerke* (Leipzig, 1912).

[2] On Hüyük, Boghaz Köi, and Yazili Kaya see the author's previous accounts in *OIC*, No. 2, pp. 35–44, and *OIP*, V, 98–119.

of Kaimar we found a fair-sized ancient mound, and in the village itself a small Byzantine inscription, a column base, and another wrought stone. The last was a "Hittite" relief showing a bull's head and a probably female human head with an elaborate hairdress similar to that worn by the Sumerian goddess Ninkharsag (Fig. 38). In Hüyük we investigated the mound proper on which the village is situated. It is rather astonishing how few sherds are to be found there

Fig. 36.—The members of the expedition before the "lion gate" at Boghaz Köi.

in comparison with other *hüyüks*. The modern settlement of the Küzül Bash village may account for this. We also had all the reliefs, still lying in a deplorable condition on a meadow before the village, turned over with the sculptures down, to avoid as much as possible further destruction (Fig. 39). It is sad to see how rapidly the weathering process is going on, of course partly due to human influences.

Via Küz Karaja we left Hüyük for Aladja, where we reached the main Yozgad-Chorum road. We followed it southward. It leads first through the fertile Aladja plain, then slowly ascends the mountain

range dividing the Yeshil Irmak basin from that of the Küzül Irmak. The only place where the road passes through a defile is near Arabsefer. On a detached rock are the traces of an ancient fortification. Before reaching the Yozgad-Köhne road we noticed also a large number of tumuli, all in a line more or less parallel to the Egri Özü valley, through which the ancient road leads. Long after sundown we reached Köhne, and two hours later Alishar.

On June 19, I made, with Mr. von Brand, another brief exploration up the Konak Su valley. Our workmen had told us that in the

FIG. 37.—A tablet from the Boghaz Köi archives. Actual size

village of Kochas, which we had already visited last year, a statue had been found. Unfortunately, it proved to be only the upper part of a late Byzantine funeral stela. From Kochas we crossed the Konak Su near Chikrikche and went up the south side of the valley, which I had not visited before. Again we found great numbers of wrought stones from classical buildings, partly beautiful architrave fragments. They surely do not come from Terzili Hammam, but we could not locate the site. All the villages speak of a certain Emir Han as the place of provenience, but nobody could show us how to find it.

On our way home I wanted to have a general view of the valley,

so we drove up the mountainside bounding it on the south. Some 1.50 kilometers beyond the village of Kongurlu (Fig. 40), searching our way up the slope without any road, we reached a small plateau ap-

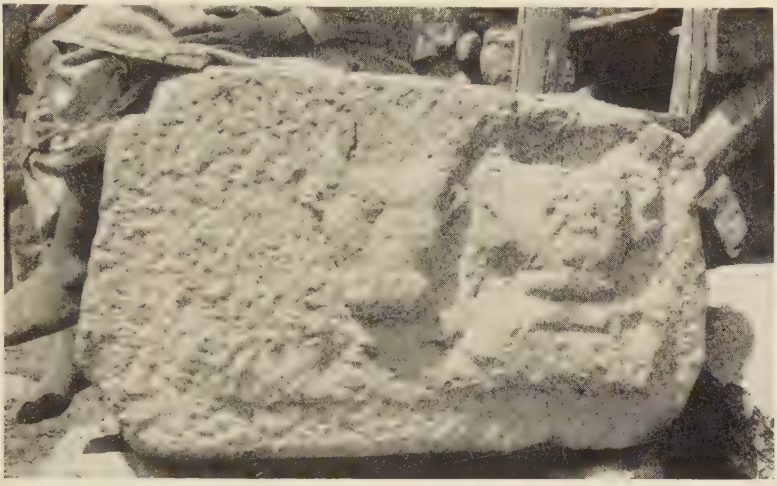


FIG. 38.—A "Hittite" relief at Kaimar

FIG. 39.—At Hüyük near Aladja

proximately halfway to the top. A slight elevation, not very high but running crosswise to the natural rock structure, made us stop. To our greatest surprise, we recognized in it an ancient inclosure wall about

800 meters long (Figs. 41–43). The wall débris is not very high, but at some places is preserved to a width of 7–9 meters. Here and there

FIG. 40.—The *jami* at Kongurlu. The tree is used as minaret

FIG. 41.—The ancient site near Kongurlu, as seen from Besh Tepeler. The lines indicate its limits.

towers were to be recognized. Inside the wall not a single building remains visible; and the few fragments of pottery scattered on the surface are of rather characterless types resembling those of Kerkenes

Dagh. It is a singular fact that on all sites of this type and at the so-called *kalehs*, which are often very large, very few pottery fragments are to be found, in contrast with the large quantities scattered over the surface of even the smallest *hüyük*. On top of the mountain range is situated an imposing group of five large and two smaller tumuli

FIG. 42.—The ancient site near Kongurlu. Plan

(Fig. 44). This group, called Besh Tepeler, had already been noticed by Charles Texier. In the tumuli are probably buried the princes of the newly discovered site.

A few days later Dr. Schmidt and I visited this spot again together. From Kongurlu we went on foot up the hill, and, as our automobile was supposed to meet us at Terzili Hammam, we continued our route down the other side. Approximately 3 kilometers from Terzili Ham-

mam we found a large complex of Roman buildings. Meantime it had started to rain. As usual in Anatolia, the rain did not last very long; but the fifteen minutes sufficed to drench us completely and to soften the soil. Stumblingly we progressed toward Terzili Hammam. One

FIG. 43.—The ancient site near Kongurlu. Part of the wall

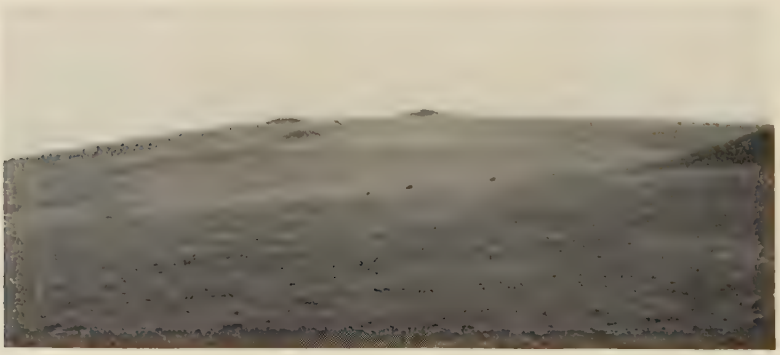


FIG. 44.—Besh Tepeler

can imagine our feelings when we saw, only about 500 meters away, our automobile making full speed on the road thither and all our shouting and signaling proved in vain. We had to complete our trip on foot to the *hammam*, where we found the rest of our party in the best of spirits enjoying a voluntary hot bath.

On June 29, Professor von Mészáros, the director of the Ethnological Museum in Ankara, arrived at Alishar (Fig. 45) with the permits

FIG. 45.—The staff of the expedition of 1928 with its guests

FIG. 46.—At Babayamur

for which we had been waiting. Hüssein had completely overhauled the old Ford coupé which I wanted to use, and a third seat had been constructed at the back so that I could look over the top of the roof. On the morning of July 1 we left the camp with as little baggage and as much gasoline as possible. The start did not seem very promising; for before we had reached Cha'ir Shehir, already visited by me in 1927, we had an accident, the car having slid down a slope (Fig. 46). Three hours we had to work until we had it on the road again.

We made new discoveries in the immediate neighborhood of Cha'ir Shehir. It lies in a regular mousetrap with only two entrances. The one by which we had come leads down a steep slope, with protruding bed rock and scrub, into the small but extremely fertile valley. The second, at its northern end, leads up to the mighty complex of the Ak Dagh. There, near an extraordinarily copious spring, is situated a *hüyük*, while a *kaleh* is seen on the west side of the gorge through which the road winds upward (Fig. 47). The bubbling spring has given the place its name, Kainar Punar. Near the *hüyük* stand the ruins of a large Byzantine building (Fig. 48).

The gorge soon widened a little and on its slopes, besides scrub, appeared regular trees. These became more and more numerous, till we were in a real wood. Soon also every sign of a road ceased, and after two hours we had to start pushing our car. For four hours we pushed the car up-hill. Finally, with the help of four oxen, we got it up on the plateau, which was densely covered with trees. Out of this green "sea" the huge main elevation of the complex arises, a white limestone mass quite devoid of vegetation. No traces of old or new settlements could we see here in this rugged, wooded country. After many futile trials we found at last a descent to the southeast. Very tired, we reached Arpa Özü at half past seven that night.

In Arpa Özü we were not received very hospitably, for the people had never seen an automobile before. So we had to cook ourselves some eggs and bacon which Professor von Mészáros had fortunately brought along. The next morning I saw in the wall of the *jami* a number of very large slabs of basalt and also the fragments of a Byzantine double column. On the roof itself was part of an acroterium. As place of provenience, Sari Kaya was indicated. We ascended the slope against which the village leans. At its top extends a fairly

large, fertile plateau with a group of rocks at the southern end. There is situated a *ziaret* with very old trees 1.00–1.50 meters in diameter

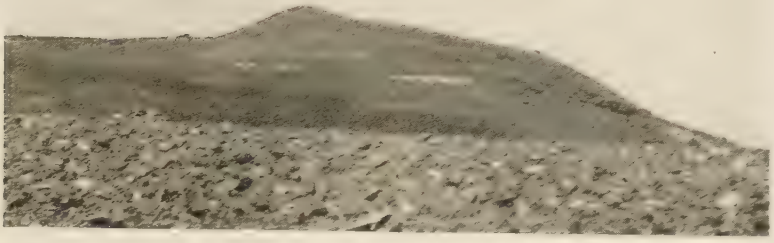


FIG. 47.—The *kaleh* near Cha'ir Shehir

FIG. 48.—Ruins of Byzantine building near Cha'ir Shehir

(Figs. 49 and 50). It is inclosed by a rather recent stone wall. In its midst is a *mezar* 5 meters long. The large headstone at the north end

FIG. 49.—The *ziaret* near Arpa Özü

FIG. 50.—The *ziaret* near Arpa Özü. Perforated stone in center

of this grave is perforated by a hole 10 centimeters in diameter, reminding one of the megalithic *Seelenlöcher*. The natives say that here is buried a very powerful Moslem saint who died in Arabia and whose body was transferred by miracle to this place. It is, of course, a much older place of worship, as is proved by the trees themselves. One of these even comes out of the *mezar*. The old worship of stones and trees, found frequently in Central Anatolia from the oldest times on, is still preserved here. If it does not rain, the villagers go up and sacrifice a lamb on the stone with the hole; and it is said that if anyone even touches the trees he will have bad luck. It was amusing to see how satisfied the three villagers looked who accompanied us when, after touching one of the trees to take the measurements, I hit my head rather violently on a big branch and acquired a large red mark.

The group of rocks at the south end is called Sari Kaya. In the rocks themselves are many caves, mostly natural, but some of them showing human handiwork (Fig. 51). Extending from there approximately 700 meters, and with a width of approximately 500 meters, are the remains of an ancient site. The pottery fragments collected were rather characterless. The view from this place is remarkable. On one side one sees the mountain ranges of the Ak Dagh complex, partly covered with thick woods. Then come its southern spurs, devoid of vegetation, their exposures of sedimentary stratification suggesting an immense layer cake. Like warts, a number of tumuli appear on the summits. An especially large one is the Alemdar, "the standard-bearer," directly facing Sari Kaya (Fig. 52). Until we reached the Kaisariyeh-Sivas highway on the other side of the Küzül Irmak, we could see it. In between these ranges are fertile valleys with ample water and numerous clumps of trees.

Nearly as difficult as the ascent was the descent to the Küzül Irmak valley. The valley itself is here very broad and, in contrast to its sloping sides, very fertile. It is closed to the north and south by rocky defiles falling steeply to the river. Nearly in the middle of this plain stands within the wheat fields a large sandstone slab 1.80 meters high in the form of a nude goddess resembling figures found in southern Russia (Fig. 53).

At Chakrak Köprü we crossed the Küzül Irmak and investigated near Burun Ören a large ancient settlement around a natural cave.

After passing over a low mountain range we reached at Sari Olan the Kaisariyeh-Sivas highway, which here crosses a large plain. Before

FIG. 51.—Sari Kaya

FIG. 52.—The Alemdar (against the horizon)

reaching the high and jagged mountains south of Sivas, we had to traverse several ranges of medium height surrounding small and fertile plains. In each plain were situated a few *hüyüks*, while on the moun-

Fig. 53.—The *dikili tash* near Tekmen

tains were a few groups of tumuli. A very large *hüyük* was found at Shark Küshlar. The ascent and descent of the mountains southwest

FIG. 54.—Sivas

FIG. 55.—Sivas

of Sivas proved very picturesque. In steep zigzags the road is built on rocky slopes often dropping several hundred meters. We crossed

the Kuzul Irmak on a very long old bridge to reach the plain in which Sivas is situated (Figs. 54 and 55).

The next morning we visited His Excellency the *vali*. All the Turkish officials here received us very cordially and helped us by giving information and showing us the neighborhood. We visited the Lyceum, where the first national assembly of Turkey declared its independence from the Sultan, and Mustapha Kemal Pasha started the war for liberty in 1920. The plain of Sivas shows relatively few ancient settlements, though the two *kalehs* of Sivas surely date from very

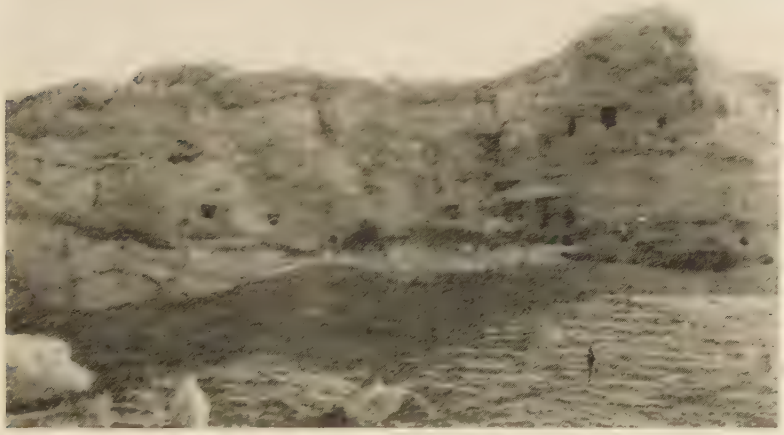


FIG. 56.—Caves at Tauraz near Sivas

ancient times. Of the Roman period, during which Sivas was a flourishing city, practically nothing is left;[1] but the Seljuk remains are famous. A few kilometers west of Sivas I investigated a spot where a few years previously a large bronze ax had been discovered. Not far from there I found a small settlement with pottery remains of various periods. Another excursion was made to the valley of Tauraz, where Cumont had noticed many rock tombs (Figs. 56 and 57).[2] Not far from it I found also a large ancient settlement hitherto unobserved. The last excursion from Sivas, made to Gauraz, up the valley of the Kuzul Irmak, revealed Kilchdik Hüyük (Fig. 58). There were used in

[1] Fr. Cumont, *Studia Pontica*, II, 217–18.

[2] *Ibid.*, pp. 226–28.

the walls of an Armenian monastery two stones with peculiar designs of an uncertain period. Interesting, too, was the museum of the city of

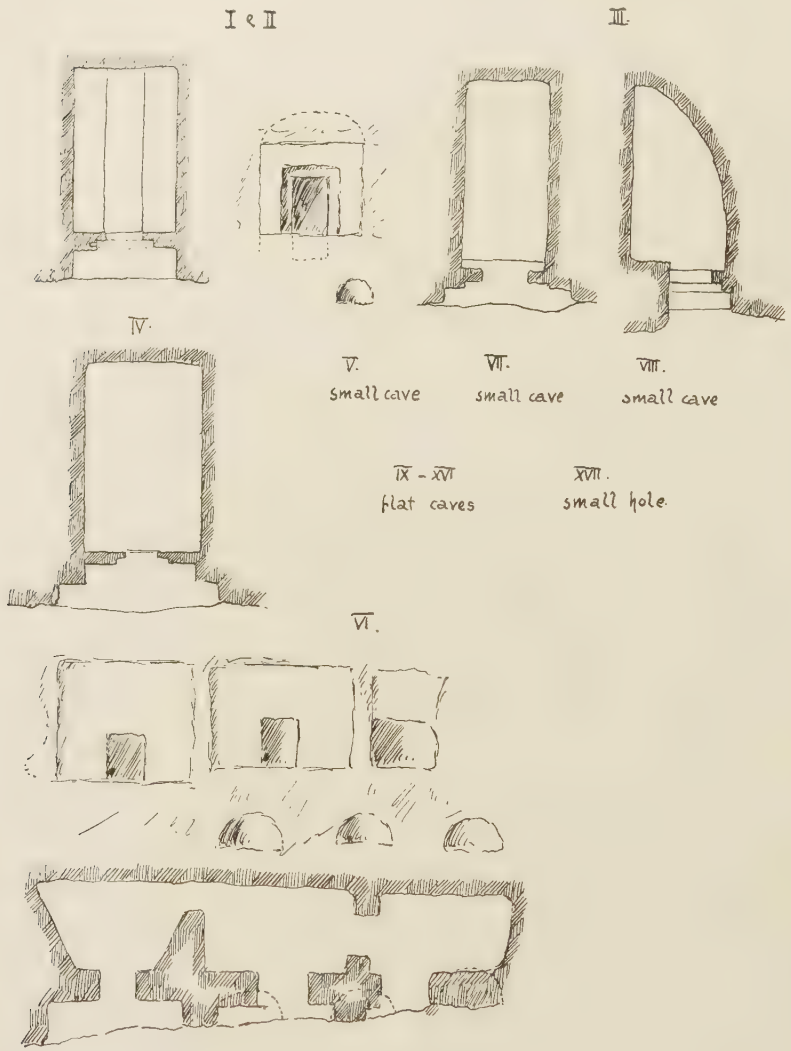


FIG. 57.—Caves at Tauraz. Plans and sections. The seventeen caves mentioned in the cut are all in one tier, with a second tier above them. Scale, 1:80.

Sivas, stored in the beautiful Seljuk Gök Medreseh. Three very archaic lions were there (Figs. 59–61), one of them very much resem-

bling the gateway lions of the earliest Senjirli style. Far more important is a torso found on Bulgur Kaleh in Sivas (Figs. 62 and 63). It rep-

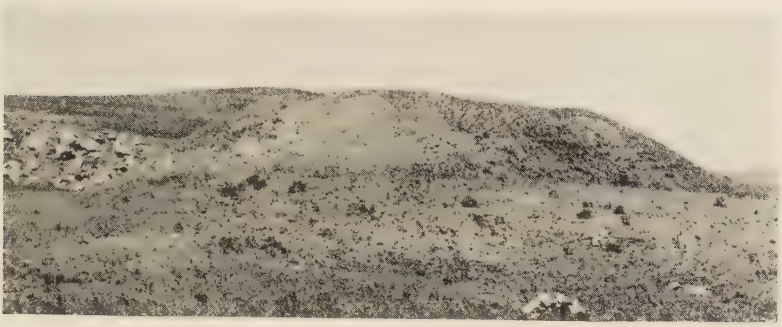


FIG. 58.—Kilchidik Hüyük

FIG. 59.—An archaic lion in the Sivas museum

resents a richly dressed personage with folded arms. It resembles archaic Mesopotamian pieces and is probably an early Hittite sculp-

ture in the round. On the Fourth of July we had a little celebration, to which we invited a few Turkish officials. Hüssein had even succeed-

FIG. 60.—An archaic lion in the Sivas museum

FIG. 61.—An archaic lion in the Sivas museum

ed in procuring a phonograph and a few American records, and to the tune of "The Fairest of the Fair" we toasted the mutual co-operation of our Institute with the Turkish Ministry of Public Instruction.

Fig. 62.—Torso in the Sivas museum

One really should not start traveling on Friday, as we did on July 6, 1928. At seven in the morning we left Sivas. Half an hour later we were in a deep ditch, with the "wishbone" and the spring of our Ford broken; but by a miracle no one was hurt. Hüssein had to go back to the city to get spare parts and help. Finally at two o'clock

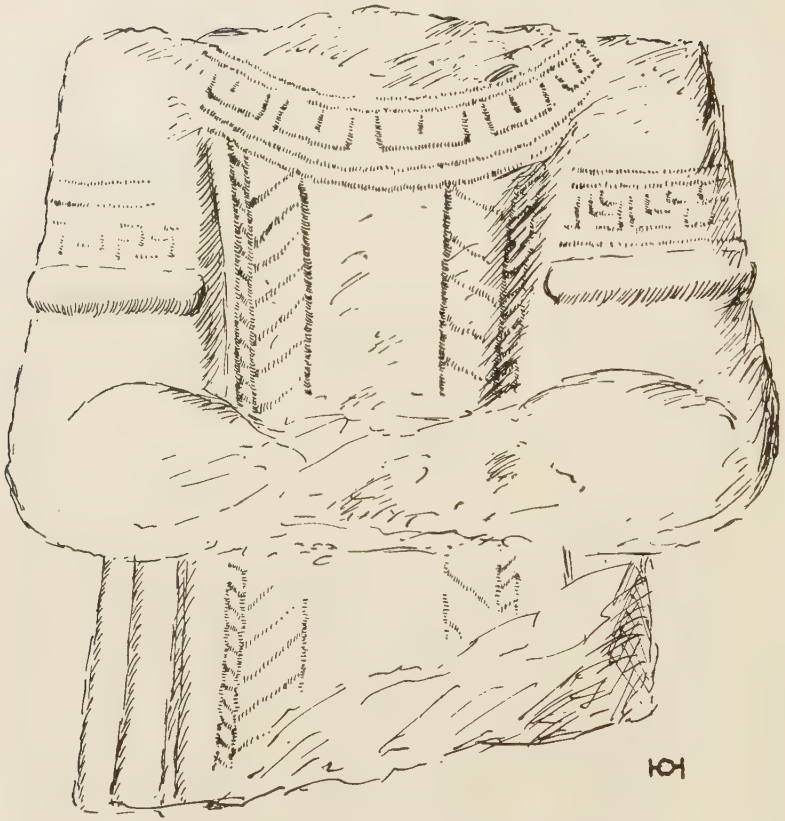


FIG. 63.—Torso in the Sivas museum. Sketch

FIG. 64.—Üch Tepeler. An Avar house

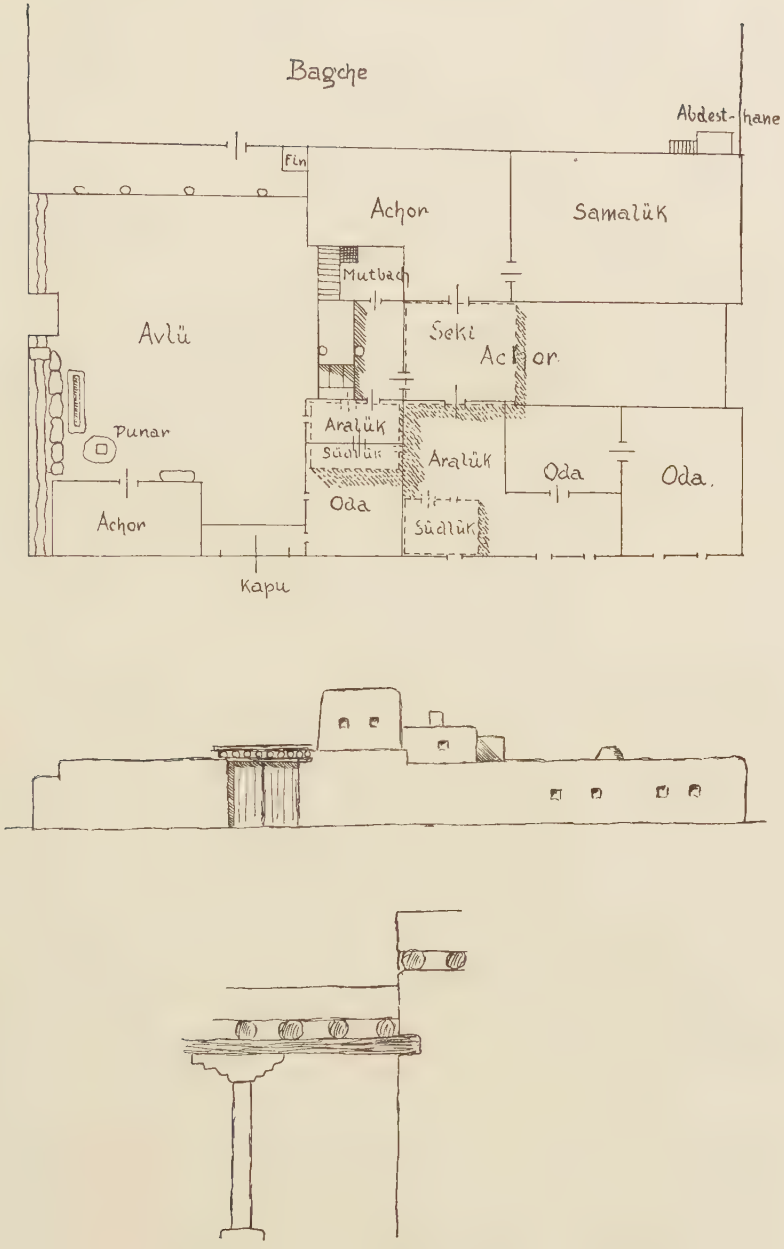


FIG. 65.—Üch Tepeler. Plan, section, and detail of Avar house

we resumed our journey. After crossing the mountains on the southern border of the Küzül Irmak we entered the plain of the Akshad Mesjid Deressi, surrounded on all sides by high mountains. With much difficulty we brought our car to a large, clean Avar village, Üch Tepeler (Figs. 64 and 65), where we were received with extraordinary hospitality. The Avars (Fig. 66), *muhajirs* from the Russo-Turkish War, came from northeast of the Caucasus. As Professor

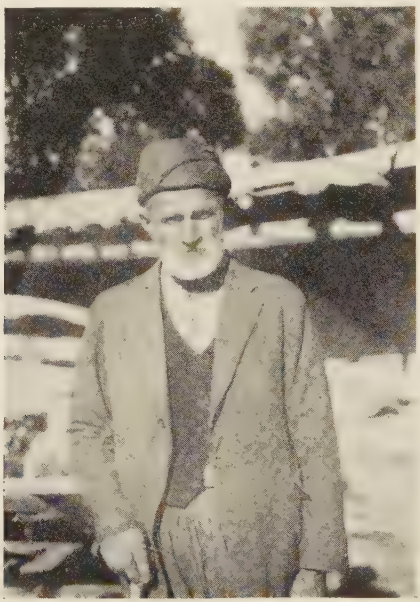


FIG. 66.—An Avar

von Mészáros told me, they are a very interesting people, having preserved many rare ancient traditions and parts of their original language. They appear historically with the Huns. They had a very high culture, and probably while they were still in their homeland many cultural possessions were borrowed from them by the Turks. The Avars are now disappearing rapidly; in only a few villages of Anatolia and on the north slope of the Caucasus are they still to be found.

In the Akshad Mesjid Deressi plain I found only one *hüyük* (Fig. 67). On a detached cliff was a *kaleh* with a tunnel similar to those which I had seen in 1926 in the region of Chorum, Tokat, and Amasia

(Figs. 68 and 69).[1] Proceeding southward, after crossing the mountains bounding this plain on the west we reached another plain around Ulash, which town is situated near a lake. Not a single ancient settle-

Fig. 67.—View from Üch Tepeler toward the Külük *hüyük*

Fig. 68.—Hafik Kalessi

ment and only very few modern villages could be seen there. Near Ulash itself we noticed a remarkable Turkish grave. On the massive stone various objects were engraved, and the headstone and footstone took the form of human figures (Fig. 70).

[1] *OIC*, No. 2, pp. 49, 60–62, 65–66, and 67–68, and *OIP*, V, 123–36.

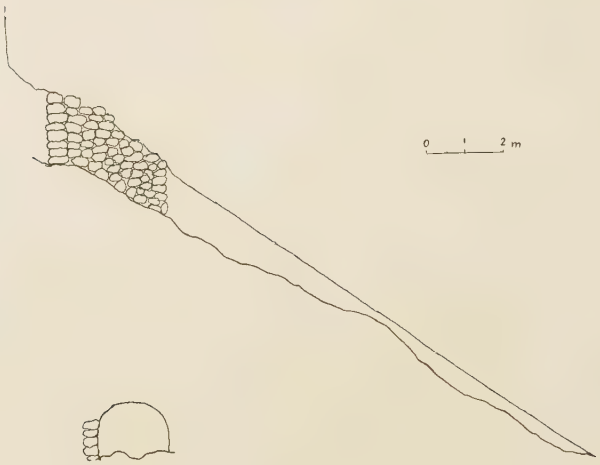


FIG. 69.—Hafik Kalessi. Plan of the tunnel

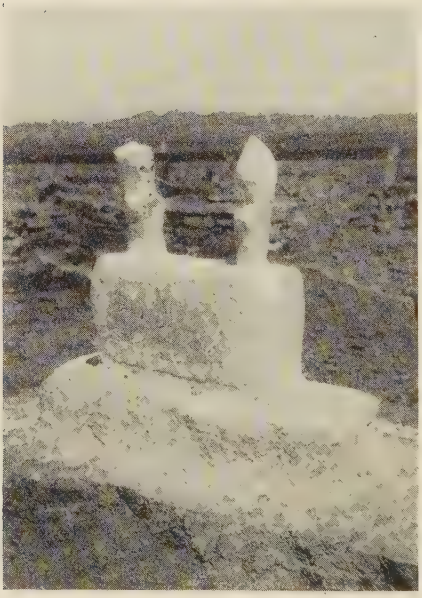


FIG. 70.—A Turkish grave near Ulash

The Ulash plain is closed toward the south by the Kurmaji Dagh, 1,932 meters high, over which we had to push our automobile. There our car received its name "*arslan*," meaning "lion," which stayed with it from then on. Natives helping us to push it up-hill tried to encourage its motor by crying, *Haidi arslan! Haidi arslan!* ("Get on, lion! Get on, lion!").

From the Kurmaji Dagh southward extends another plain, meeting a high plateau the crest of which is so straight that it seems to have

FIG. 71.—A Kurdish grave at Khomarlü

been cut off with a knife. At the northern edge of the plateau, called the Kara Seki Yazi, the Hawus Deressi flows. There we were to make one of the most interesting investigations of this year's exploration. The plain itself is fertile, and I noticed two fair-sized *hüyüks*. We were just about to leave this plain at its southeastern corner, where through a narrow valley the road leads southward, when Hüssein stopped the car at a small bridge, the Halep Köprüsü. Two large basalt stones, probably stelae, had been re-used in its walls. A native near-by told us that in his village were several *resimli tashlar;* he pointed also to a rocky elevation detached from the plateau and situated near the bridge as being a *kaleh*. Investigation on its summit revealed walls built with fairly good-sized stones without mortar. We, of course, immediately changed our direction and turned westward, following the slope of the plateau as far as Khomarlü. It is a small and very

poor Kurdish village, and the natives received us with great suspicion. Only after much talking could we secure a stable for the night. The *resimli tashlar* proved to be rather recent Moslem tombstones of peculiar form and decorated with pictures of pistols, daggers, and other warlike objects (Fig. 71).

The natives volunteered the further information that at the rocky upper part of the plateau slope were rock carvings and on its very

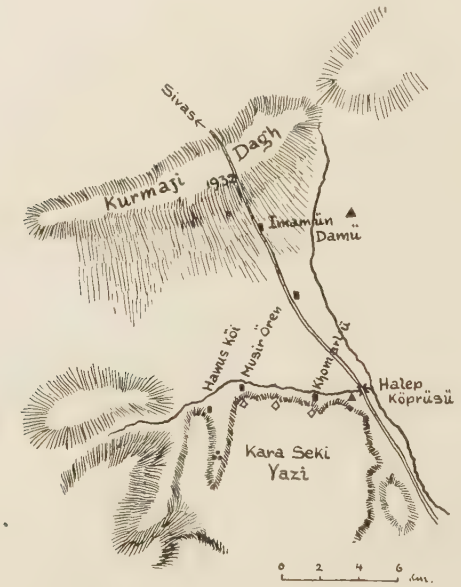


FIG. 72.—The Kara Seki Yazi and surroundings

crest a *kaleh*. It was already late in the evening, and a cold rain suddenly came down after black clouds had threatened us the whole day. We left the car in the village under the care of Hüssein and went up one gully leading rather gently to the plateau (Figs. 72 and 73). At the point where this natural approach reaches the plateau level is situated a large site with abundant building remains. The whole surface is covered with rock and stone, and the rain had made it so slippery that it was nearly impossible to walk on. So I went down again to the village, leaving the investigation for the next day. Professor von Mészáros had in the meantime secured some chickens, and his culinary skill once more saved us from starvation.

The next morning very early I went up on the plateau. It proved quite extraordinary. Some 3×6 kilometers in area, it lies as flat as a table. Toward all sides it falls away steeply; only on the southwest

FIG. 73.—The Kara Seki Yazi

FIG. 74.—Detail of the *kaleh* near Khomarlü

is it connected with a larger mountain unit. The northern edge, which I investigated, showed two other natural approaches. At the entrance to each of them a modern village is situated, and on top of the plateau near each one a *kaleh*. The largest of these *kalehs* is the one near the

approach leading up from Khomarlü (Fig. 74). Walls constructed of large bowlders extend for some 200-300 meters. One building, especially well preserved, shows three large towers and walls 2 meters wide. This Khomarlü approach is interesting for another reason also. About halfway up to the plateau, on the steep, steplike upper part of the slope, directly opposite each other and turned to the north, i.e., toward the entrance, designs are cut in the rocks (Figs. 75 and 76). In both

FIG. 75.—Rock carving near Khomarlü

cases they show a cross resting on a stepped base, in the middle of which in one instance appears a door. The cross is set in a double circle, and into its angles extend raylike elements. One is tempted by the cross to assume a Christian origin, but in another way the design much resembles old Mesopotamian sun symbols. The stepped base would then represent a mountain and the door the entrance to the underworld.

The *kaleh* at the second approach, near Musir Ören, has also remains of broad walls, but it covers a less extended area. I descended this approach to the small Kurdish village and had to pass a rather disagreeable ten minutes besieged by five huge shepherd dogs till the

very indolent natives found it convenient to recall them after I had threatened to shoot the animals. A few minutes later our "*arslan*" came, bringing Professor von Mészáros and Hüssein. I had heard that near Hawus Köi, a very large village situated at the entrance to the

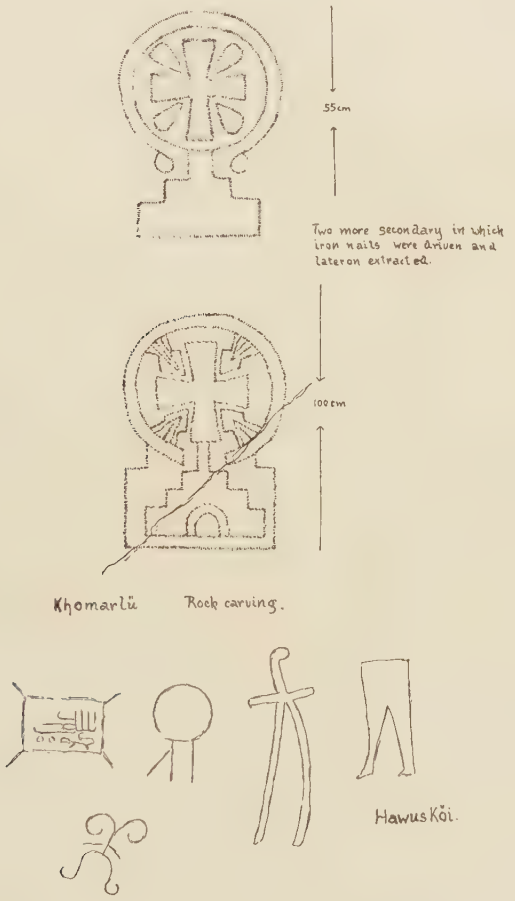


FIG. 76.—Rock carvings from the Kara Seki Yazi

third and largest approach to the plateau, there was a real *arslan*. This third approach leads approximately 2 kilometers into the plateau and is about 1 kilometer wide. At its end, just before reaching the plateau, are numerous walls and building remains, and in their midst

FIG. 77.—The *arslan tash* near Hawus Köi

a huge stone lion 2 meters long, 1.30 meters high, and 0.75 meters wide (Figs. 77–79). The stone is basalt, and the sculpture is completely preserved. The style of this lion reminds one both of the gateway lions

Fig. 78.—The *arslan tash* near Hawus Köi

FIG. 79.—The *arslan tash* near Hawus Köi

of Senjirli and of the famous "lion gate" at Boghaz Köi. There seems no doubt that this piece is Hittite and that we have to deal here with a large Hittite border site. The line of *kalehs*, extended by two more, the Koch Köprüsü Kaleh and the Aghaya Kaleh, which I found later not far from the plateau, suggests a frontier. Toward noon we went back to Hawus Köi, a Turkish village, where in contrast with the Kurdish villages we were received with the greatest hospitality. Its cemetery is full of wrought stones and contains also several of those basalt stelae which we have to thank for this discovery and of which I found two, probably *in situ*, at the edge of the plateau.

We left Hawus Köi by the same road over which we had come, and at the Halep Köprüsü we assumed again our southerly direction. The road follows a dry, narrow valley with picturesque border formations, slopes of decayed rock débris in which are interspersed harder strata, the whole often capped by grotesque rock groups. Almost no vegetation is to be seen. At Manjolik, where the valley is fairly fertile on account of water, there is a large *hüyük* on a detached mountain. There we started to ascend a high plateau, from which in turn arises the Gürün Dagh. It is a beautiful mountain landscape. For nearly three hours we drove at a height of over 2,000 meters. Toward sunset we reached the southern edge of this plateau and at our feet, nearly 1,000 meters below, we saw the valley of Gürün (Fig. 80). It looks like an oasis in the desert, as it really is, with large trees in the center of the valley and with gardens on artificial terraces a little way up the sides, then abruptly the white slopes of decayed limestone. In audacious zigzags the road descends rapidly; and we did not feel very well for fifteen minutes, as our brakes worked very unsatisfactorily and occasionally not at all. But we reached Gürün safely and were heartily welcomed by the *kaimakam* and the gendarmery commander, who had been expecting us. In a relatively clean hotel we found sleeping-quarters.

The next two days I spent investigating this extremely interesting valley (Fig. 81) while Professor von Mészáros was collecting material for his museum. The valley of Gürün, through which flows the Tokhma Su, a tributary of the Euphrates, extends in varying width for about 45 kilometers. Not very far from Gürün, at the place where the river emerges from a deep gorge, are the two famous "Hittite"

inscriptions exemplarily copied by Benson B. Charles, of the Cornell Expedition.[1] The valley ends not far east of Derende, where the river enters a nearly impassable defile from which it emerges into the vast plain of Malatia. My main aim here was to find ancient, that is, preclassical, settlements. In the valley itself I saw only two small ones of uncertain period and character in a small lateral valley near Telin. So I examined the slopes on both sides. On a natural terrace not very

FIG. 80.—Gürün

far from Gürün itself, between the town and the place with the hieroglyphic inscriptions, I found an ancient settlement and two tumuli, the larger of which may be the remains of a watchtower. A little farther on, I saw also a late classical mausoleum (Figs. 82 and 83). Unfortunately, I could not investigate Derende and its surroundings for lack of fuel and also because of an infection I had contracted which made my moving around rather difficult.

Near Telin and near Gürün, as well as at other places in this region, are numerous caves, often as many as six tiers one over another

[1] Charles, "Hittite Inscriptions," *Travels and Studies in the Nearer East*, Vol. I, Part II (Ithaca, New York, 1911), Figs. 30–31.

(Figs. 84 and 85). All are above the valley level and relatively difficult to reach. If one contemplates the topographical situation of this extremely rich and fertile valley, one cannot see any place especially

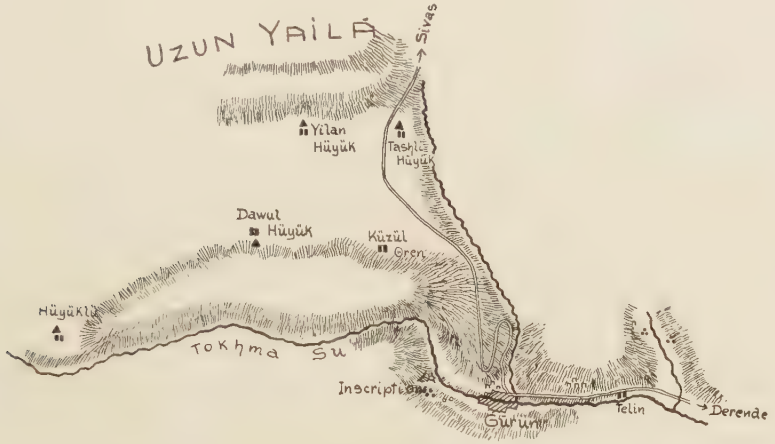


FIG. 81.—Sketch map of Gürün and vicinity. Scale, 1:400,000

FIG. 82.—Mausoleum near Gürün

well adapted for defense. At both ends it is closed by impassable gorges, but both sides of the valley for its whole length are equally steep and difficult to ascend or descend. So there is no especially

dangerous point. If efficient defensive works had been undertaken, the whole line would have had to be fortified. So I think it possible that from the most remote times the folk occupying this fertile valley may have lived in these caves. If plundering enemy hosts descended

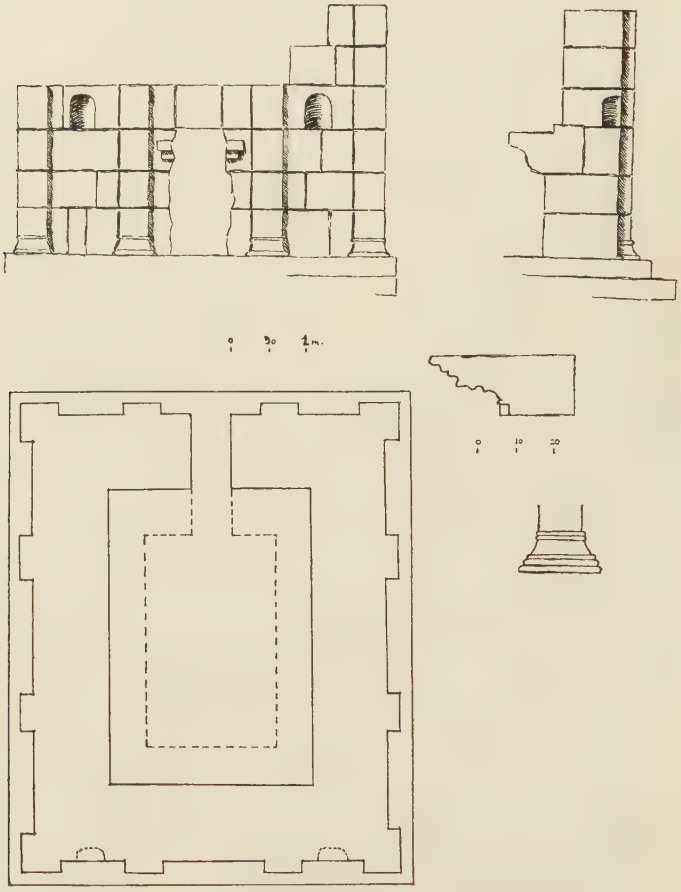


FIG. 83.—Mausoleum near Gürün. Plan, elevation, and details

into the valley, its inhabitants might simply retreat to their cave settlements, which would be relatively easy to defend. Though this solution is not completely satisfactory, I cannot as yet see any other.

On July 12 we left Gürün, pushing our car for three hours up the same road we had descended in ten minutes. On the top of the plateau

we left the main road, following a small depression westward. It brought us into a fairly fertile plain a little below the general level

FIG. 84.—Caves at Gürün

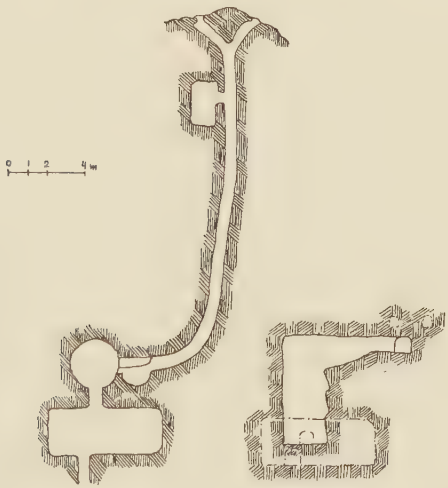


FIG. 85.—Plan of a large cave at Gürün. It is said to have led to the river, but is now caved in.

of the plateau. There we saw, widely separated, three small *hüyüks*—Dawul, Hüyüklü (Fig. 86), and Yilan. Their pottery is very archaic,

FIG. 86.—Hüyüklü

FIG. 87.—Kurds at Dawul Hüyük

but shows no relation to the pottery at our Alishar mound. From this plain the plateau ascends stepwise to the foot of the Gürün Dagh, around which extends the Uzun Yaila, a relatively flat area on which

the nomadic Cherkess and Kurds keep their cattle and sheep during the hot summer months (Fig. 87).

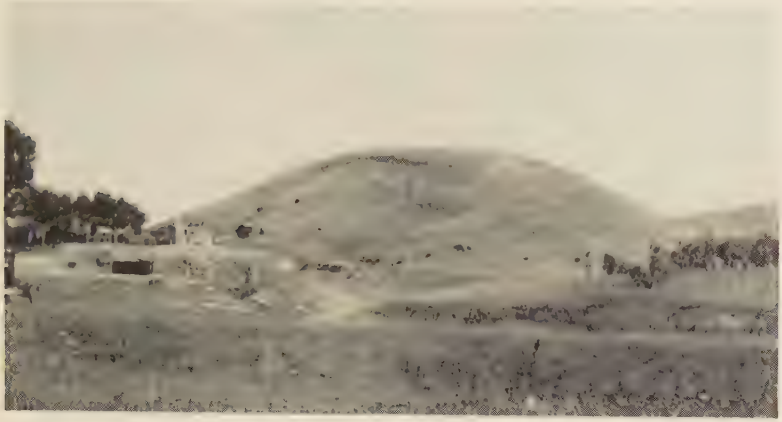


Fig. 88.—A *hüyük* near Kavak

Fig. 89.—View from Koch Köprüsü Kaleh

We reached the Sivas-Gürün road near another small *hüyük*, Tashli Hüyük, and followed it northward as far as Manjolik. From there we went eastward through a gently undulated but almost completely arid plain to Kangal on the ancient and only road connecting

the Central Anatolian plain directly with the region between the Euphrates and the Tigris. Kangal is a small, prosperous town. Eastward the plain slopes gently up toward the mountain complex which cuts off Central Anatolia from the East. As one approaches the foothills, he finds among them small, fertile valleys. I saw there three *hüyüks* with again very old, but to me previously unknown, pottery (Fig. 88). Where the Kangal Su enters a defile on its eastward journey toward the Euphrates, I found the already mentioned Koch Köprüsü Kaleh (Fig. 89) on a detached cliff. At its base are the remains of two piers of a Roman bridge. Unfortunately, we could not find the old

FIG. 90.—Hassan Chelebi

Roman road. In fact, we did not find any at all; so we were soon stuck, with all the springs on our car broken. We reached Kangal, Hüssein not feeling very friendly toward our "*arslan*," which he now called "*kaplun bagha*" ("turtle"). In Kangal we could get the spare parts without difficulty, because it lies on the great traffic artery. Daily as many as ten automobiles, a very great number for Anatolia, pass through the dusty little town in each direction. But this modern means of transportation does not and will not for a long time to come supplant the endless caravans of camels, donkeys, mules, and other animals which carry the products of two worlds from one to the other as they have done more or less successfully for thousands of years.

Soon, after overcoming many difficulties, we reached the valley of

the Kuru Chai, along which leads the road to the beautiful and modern town of Malatia, located in an extremely fertile plain. Sometimes the valley narrows to small defiles with very steep rock walls on both sides; sometimes it widens into small, more or less fertile plains, while the steep valley slopes are entirely covered with scrubby trees. Only at Hassan Chelebi (Figs. 90 and 91), where we chose to stop over night, did I see a *hüyük*, here called Mal Tepe, "treasure hill" (Fig. 92). Our stay at Hassan Chelebi proved to be of extraordinary interest, as the natives told of many ancient remains supposed to be in the neighborhood. The whole valley is bordered here by high, rocky mountains; so very early in the morning I took a horse and a guide, and long before the sun was completely up I was already under

FIG. 91.—Hassan Chelebi and surroundings. Sketch map.

FIG. 92.—Mal Tepe near Hassan Chelebi

way for the mountains. In a relatively small lateral valley, at a place called by the natives Kara Kavak, I found the remains of a very large Roman settlement (Fig. 93). Toward the end of this little valley is situated the small village of Bashgenik (Fig. 94). From there I worked my way up-hill on a path impassable even on horseback. After approximately two hours' effort I succeeded in reaching a small, very isolated

plateau. Quite in contrast to the bare and rocky ranges which surround it, this spot, at an elevation of some 2,200 meters, is covered

FIG. 93.—Kara Kavak

FIG. 94.—Bashgenik, a typical mountain village

with relatively fertile soil cultivated at the present time by the villagers of Bashgenik. There are three small but very clear lakes on it,

with a great number of springs. One of the lakes is artificial, paved with cyclopic bowlders (Fig. 95). Around it are large stone heaps; and the entire surface is covered with pottery fragments, which, however, to my dissatisfaction were more or less characterless. One cannot help

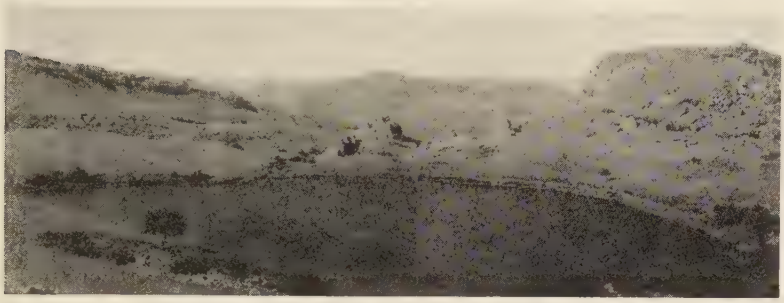


Fig. 95.—Yapma Göl

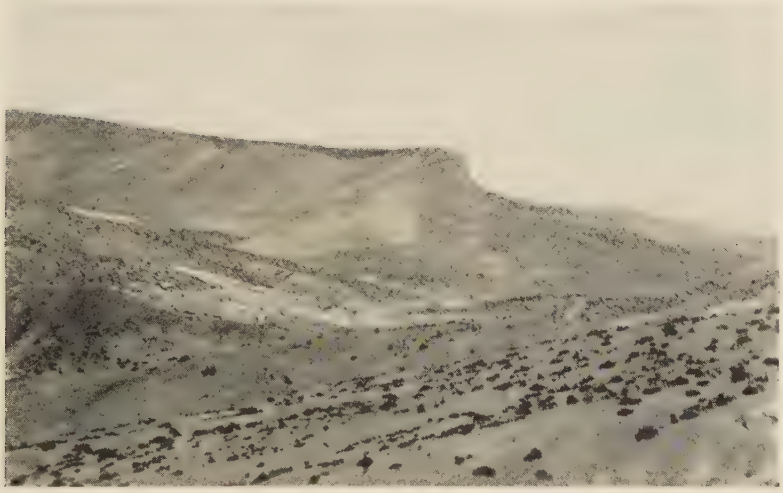


Fig. 96.—On the road to Malatia

feeling that this spot must have been in earlier times the place of worship of a mountain goddess. The descent to Hassan Chelebi was far more disagreeable and ticklish than the ascent, especially since the sun was now burning down pitilessly and the great rocks were reflecting and increasing the heat.

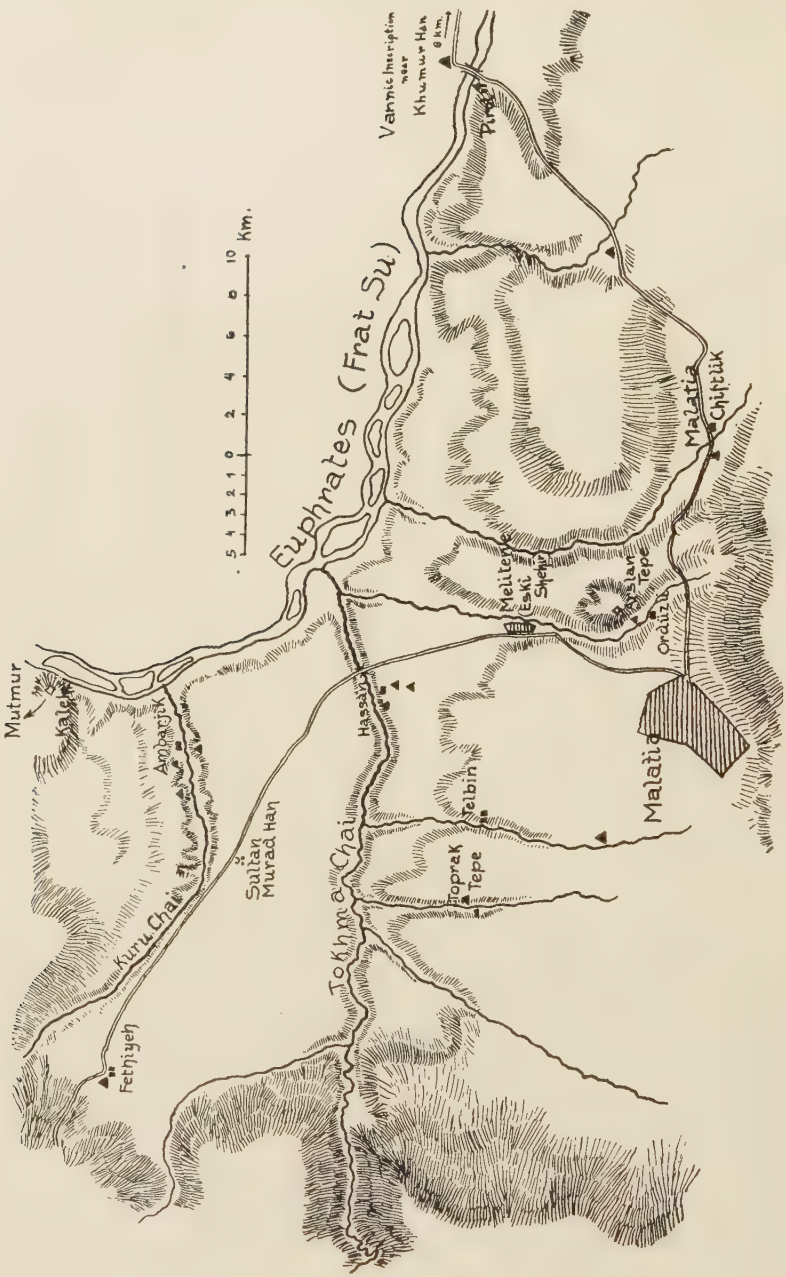


FIG. 97.—The plain of Malatia. Sketch map

Toward noon we left Hassan Chelebi and resumed our route toward Malatia. The road is here fairly well built; but 40 kilometers south of the village of Hekim Han, where it starts to wind up to the top of the great gorge through which the waters of the Kuru Chai have eaten their way eastward, it gets decidedly dangerous (Fig. 96). The grade gradually became too steep for our old "*arslan*," and we had to take to our last resource of pushing it up the hill. From Hekim Han on, the mountain ranges are covered more and more densely with low scrub, and even small trees are frequently seen. Near the exit of the Kuru Chai gorge, on prominent elevations, three fair-sized *kalehs* appear. Abruptly the mountain slopes away several hundred meters toward the fertile Malatia plain, a gently undulated plateau extending approximately to the Euphrates. The river remains invisible, however, on account of flowing behind a rim of small elevations. Beyond them appear in the distance high and rocky mountain ranges, the especially imposing Misha Dagh being even situated east of the Euphrates.

Flowing in valleys relatively shallow but with very steep sides, the Kuru Chai and the Tokhma Chai divide the Malatia plain into three main parts (Fig. 97). North of the Kuru Chai and south of the Tokhma Chai this plain ascends in terraces toward higher mountains. The most important region, that south of the Tokhma Chai, is again divided by various small tributaries of that river which flow in general toward the north. Only along the rivers occur a few groups of trees, which become larger and more frequent farther upstream. At the foot of the great mountains that bound this plain on the south, and entirely hidden by orchards of large trees, lies the city of Malatia. Unfortunately, I could not contemplate this picturesque view any longer, as it had become rather late; so in the twilight of the fast-setting sun we sped southward over the plain. We passed at Eski Shehir the huge ruins of ancient Melitene, destroyed by Timur Lenk about 1400 A.D. (Fig. 98). The imposing wall ruins of the old Seljuk fortifications, partly hidden by large trees, provoked a particularly awe-inspiring impression. We succeeded in reaching Malatia just at dark and found a relatively clean resting-place in a large *han* in the center of the city.

For three days we made Malatia our headquarters. The first day was a rest day. First of all, Hüssein had become sick with a fever,

FIG. 98.—Melitene

FIG. 99.—Malatia. The bazaar

FIG. 100.—Arslan Tepe near Ordüzü. The sculptures are lying near the group of workmen (above in center)

and our "*arslan*" was still sicker. We visited His Excellency the *vali* and the other authorities and were especially well received by all of them. In the afternoon of our first day there, July 15, we were invited to the reception at the inauguration of the electric power plant. In the evening the whole of Malatia was plunged into a sea of light, and it was very interesting to notice the awe inspired in these primitive people. The inhabitants of Malatia are still extremely fanatical, and in spite of European headdresses one feels here, more than anywhere

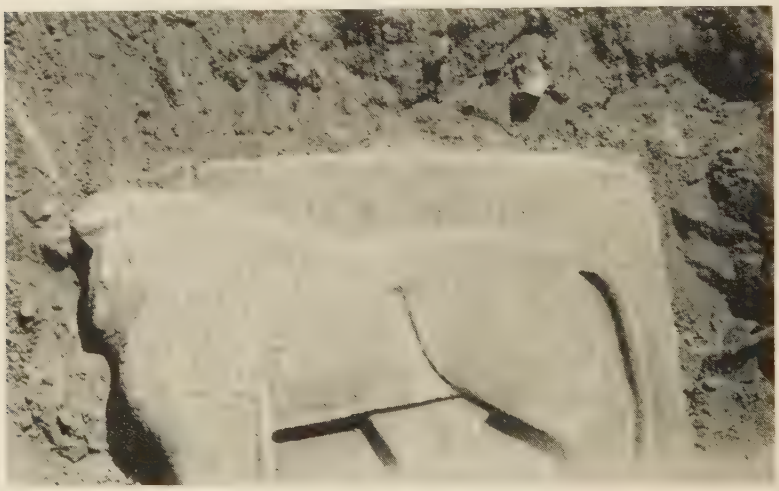


FIG. 101.—The lion on the Arslan Tepe

else in Anatolia, the atmosphere of the East. Very few women frequent the streets, and all of them are deeply veiled. Large caravans of camels are passing through the city day and night or resting in the streets, obstructing everywhere the comparatively heavy automobile traffic. Malatia is the bridgehead for the Turkish part of Mesopotamia and is consequently a very prosperous town. The bazaars are extremely rich, especially in silver objects (Fig. 99). A peculiarity of all these eastern *vilayets* of Turkey is that they still use the old silver coins. In Malatia it was almost impossible to get anything for paper money. At best, there was a heavy loss on it through the rate of exchange. There are still quite a number of Armenians living here, but Kurds are the dominating element on the streets.

FIG. 102.—Sculpture on the Arslan Tepe. King(?) pouring libation before two gods. Left end

FIG. 103.—Sculpture on the Arslan Tepe. King(?) pouring libation before two gods. Right end

FIG. 104. Sculptured block from Arslan Tepe Side I, warrior or god

The next day I walked over to the famous Arslan Tepe (Fig. 100) near the village of Ordüzü in the valley of one of the northward-flowing tributaries of the Tokhma Su. The village and the *hüyük* itself nestle amid rich gardens with all kinds of fruit trees. Especially famous are the apricots that come from there. The *hüyük* is badly destroyed, as the natives are using its soil to fertilize their gardens and fields. Everywhere, from top to bottom of this large *hüyük*, wall fragments are exposed. During such unofficial excavations the sculptures now in Istanbul and several others have come to light.[1] The famous lion bearing a few incised "Hittite" hieroglyphs is still lying on the spot where it was unearthed, halfway up the slope (Fig. 101). The figure was completely preserved; but, as the people were not sufficiently advanced to transport the whole stone to Istanbul, they tried to cut the face off, spoiling it, of course, completely.

Not far from the lion there had come to light last year a very large limestone slab broken into two pieces (Figs. 102 and 103) but otherwise remarkably well preserved. It shows a bearded god with short skirt and conical headdress, his right hand elevated, standing before a two-handled vase. His left hand is stretched forward directly over the vase. Before him stands a beardless man in a long, fringed garment, holding in his left hand a curved staff and in his right a smaller vessel out of which he pours a libation into the vase. Behind the first god appears a second, similar one holding the reins of a chariot drawn by two horses. The body of the chariot is in the form of an eagle. Between the two deities appear two hieroglyphic signs, likewise in relief. Behind the figure in the long garment appears an attendant with a bull. Above him is a hieroglyphic inscription of six signs.

In the near-by garden I was shown another sculptured block (Figs. 104–6), which the people claimed had been found there. It is a rectangular block with single figures sculptured on three sides. First appears a bearded warrior or god with a short skirt. Both his arms are raised. Then comes a winged demon similarly dressed, his upraised right hand holding a short sword while from his left hand depends a conventionalized branch. The third side shows a bull standing on conventionalized mountains. Two more sculptures of the same provenience are now in the Lyceum at Malatia. The first (Fig. 107), with

[1] On these sculptures, see also the author's article in *AJSL*, XLV (1929), 83–89.

Fig. 105.—Sculptured block from Arslan Tepe. Side II, winged demon

FIG. 106.—Sculptured block from Arslan Tepe. Side III, bull on mountains

three faces, is similar to the block just described. Its upper part is better preserved and shows a cylindrical headdress not unlike the later city crown. On the other block (Fig. 108), larger but broken into two parts, two animal-headed demons wearing short skirts face each other. Each has one hand outstretched holding a branch over a conventionalized palm tree which stands between them. With the other hand each holds a different weapon over his shoulder. All the figures on these four stones wear shoes with upturned toes.

Technically, two different periods, and perhaps even a third, are represented. The relief with the hieroglyphic signs shows, in spite of resemblances in the figures, a better technique than the others. Finally the lion, technically and stylistically by far the best sculpture, has very crudely engraved hieroglyphs. On account of them it is probably most closely related to the large relief with the hieroglyphic signs. On the other hand, the lion sculpture is far superior to the rest. Another most interesting fact to be observed on the Arslan Tepe is the almost complete absence of painted pottery. Not a single piece collected there or on any of the other *hüyüks* of the Malatia plain showed any resemblance to pottery from the Alishar *hüyük*. On a rocky elevation not far from Ordüzü stands a small, probably preclassical *kaleh*.

The next day both our "*arslan*" and his keeper were again on their feet. So we went out to explore that part of the Malatia plain south of the Tokhma Su valley. This excursion proved exceedingly interesting, as it showed the topographical structure of the plain as well as the positions of the ancient settlements. High mountains with rather steep slopes bound the Malatia plain on the south. Before them, not quite so imposing in height, rises a range of foothills. In between are extremely fertile valleys with numerous fruit trees and gardens. The mountains themselves are nearly bare of vegetation, aside from a few natural terraces on which appear wheat fields and trees. At the base of the foothills the city of Malatia itself is situated in the midst of trees and gardens. There the plain begins, rather arid and with little cultivated soil except along the tributaries of the Tokhma Su, where again trees and gardens are frequent. The Arslan Tepe is situated in the valley of one of these tributaries. In the same valley, farther downstream, lies the ancient site of Melitene, which was destroyed by the Mongols. Before that raid this whole plain as well as the whole of

FIG. 107.—Sculpture from Arslan Tepe, now in the Lyceum at Malatia

FIG. 108.—Sculpture from Arslan Tepe, now in the Lyceum at Malatia

Upper Mesopotamia had been a flourishing, richly populated country. A few kilometers south of the Tokhma Su comes a steplike descent with gentle slopes, then finally a steep drop toward the Tokhma Su, which flows in a very large and wide valley. On the plain, between the fertile valleys of the tributary streams with their ancient settlements, tumuli appear. In this region I noticed besides the Arslan Tepe one *hüyük* near Fethiyeh, three around the village of Hassan, one near Toprak Tepe, and one near Samam Köyü. Two more excursions from Malatia showed me the foothills and the territory between them and the high mountains that separate the Malatia plain from the Marash plain.

It gave me great pleasure to meet in Malatia Professor F. Wichgraf, who had been at Alishar for three weeks in 1927 and had painted for us several pictures of the *hüyük*. The seventy-year old gentleman was tramping all by himself through eastern Anatolia. Together with him I made an excursion to the Euphrates. The modern road leads at the most suitable spot through the foothills in an easterly direction toward a point on the Euphrates where the high mountain chains along its east bank recede, permitting easy access to the territory between the Euphrates and the Tigris. Near Malatia Chiftlik, in the valley of a tributary of the Euphrates similar to that in which lies Arslan Tepe, a very large *hüyük* is situated. Near the road, on a similar northward-flowing tributary of the Euphrates approximately 10 kilometers farther east, I investigated a second, small one. Finally at Pirot (Fig. 109), whence a large wooden bridge leads across the river (Fig. 110), I saw a third, very large *hüyük* sloping directly down to the Euphrates. The pottery fragments collected from all these *hüyüks* are nearly the same as the ones on the Arslan Tepe and unknown to us in Alishar. I continued for 8 kilometers along the east bank of the Euphrates to the famous Vannic inscription near Khumur Han.[1] It is carved in a cliff upon which a fort is situated (Fig. 111). Facing it on the west bank is another, which unfortunately I could not investigate. We turned back at this point, for the time being respecting the ancient boundary between the Hittite and the Vannic powers; but *inshallah* we shall come back better prepared and cross it, pushing farther east and northeastward.

[1] A. H. Sayce in *Journal of the Royal Asiatic Society*, N.S., XIV (1882), 542 ff.; and Olmstead, *History of Assyria*, Fig. 83.

An invitation to an official reception given by the Turkish government took me to a beautiful fruit garden near Ismet Pasha Köyü, the birthplace of the prime minister of the republic. The whole valley is

FIG. 109.—Pirot

FIG. 110.—The Euphrates bridge at Pirot

nothing but a large fruit garden with the most perfect apricots, apples, and pears. In the very middle stands a *hüyük* (Fig. 112). Accompanied by two gendarmes on horseback, I went from there over two bare mountain ranges to Atmalü Deressi, where some "caves" had been found a few weeks previously. The "caves" proved to be Byzantine

tombs of a well-known type built of bricks. The pottery fragments collected there proved that this site had been fortified in much earlier times.

FIG. 111.—Cliff near Khumur Han with Vannic inscription

FIG. 112.—Ismet Pasha Köyü

On July 19, after we had taken leave of the Turkish officials and were ready to resume our trip, I suddenly noticed a kavass of the American embassy among the colorful mass of natives. Going toward

the group, I saw Mr. Taylor, the commercial attaché of the embassy in Istanbul, and Malik Bey. We had but a few minutes together, as they were on their way to El-Aziz and we were bound for Arabkir. We left Malatia at half past ten and went northward through the plain toward the high mountains that bound it on the north. As far as the Kuru Chai all went well. There, however, the so-called "highway" of which everybody had told us turned out to be a loose sand road without any stones. The whole region north of the Kuru Chai, as well as

Fig. 113.—The place of our accident between Mamur and Ambarjik. In the background the Misha Dagh, east of the Euphrates.

the region between the Tokhma Su and the Kuru Chai, is nothing but a desert.

Beyond the Kuru Chai the plain slopes upward, not very steeply but just enough so that on account of the sand our "*arslan*" could not make the grade. In that terrible heat, Professor von Mészáros and I pushed the car up each rise. Then the car would speed ahead some 50 meters to the next rise, keeping us running to be in time to keep it moving. When we had almost reached the highest point on the road, there was a sudden click. The car would not move another inch in spite of the motor's lively purring. An axle had broken! It was about three o'clock, the heat was terrific, no water was to be had for miles around, nor was there a sign of a village of any kind (Fig. 113).

Malatia was approximately 40 kilometers away. The situation was really rather disagreeable. First of all, the three of us crept under the car to get some protection from the sun. Toward evening Hüssein and I went off in different directions to look for water, while Professor von Mészáros was to watch the car. After an hour I came back from my fruitless search. A little later Hüssein arrived, completely exhausted, carrying in one hand the empty water bottle and in the other a collection of potsherds of various periods. In not very choice language he voiced his opinion about the Hittites and other people in general, and in particular about the people whose traces he had found in the form of potsherds near a dried-up well. Some of the sherds he had collected probably go back to the Hittites.

Meantime it grew dark, and something had to be done; so Hüssein and I went out to look again. After an hour of searching we finally found a small, poor Kurdish village. The people were extremely unfriendly, and only with great effort and much money could we persuade them to give us some bread, cheese, and *airan*, and especially some water. We also succeeded in getting four oxen to drag our car to the next village. Probably more dead than alive, we came back to the car. At eight o'clock sharp the electric lights of Malatia shone out brightly and tantalizingly, as though they were only half an hour away. But we had water and something to eat, so we were now in the best of spirits. Hüssein started to sing to the tune of "Valencia" a quickly composed song of Malatia and all its beauties. With four Kurds, their oxen, and several donkeys from the village, we slept beside our disabled car under the beautiful sky of an Anatolian night.

The next morning at four o'clock we tried to move our car to the next village, but the task proved absolutely impossible (Fig. 114). We left the car on the road with a man on guard and walked down to Ambarjik in the Kuru Chai valley, about 5 kilometers away. This was a Turkish village, and again we were received with the well-known hospitality. I got hold of a horse and rode the 40 kilometers to Malatia, arriving there in the evening. With the help of the police I was able to secure the necessary spare parts the same evening. Next morning I left Malatia in a rented car at four o'clock. In an hour and a quarter we were at the wreck; and before the heat of the day had even begun our "*arslan*" was again spick and span, ready for new

adventures. The rest of the day I investigated the Kuru Chai valley, finding three *mal tepes*, as *hüyüks* are called here. With the one at Fethiyeh on the Kangal-Malatia road, it made four ancient settlements in the Kuru Chai valley.

On July 22 we left Ambarjik and followed the Euphrates to Mor Hammam. On a detached cliff not far from this town I noticed a large *kaleh*, and by a small tributary a *hüyük* with a triple wall was still partially recognizable. There was no road, so to speak; but with our small car we could manage to find passages through defiles, to push

FIG. 114.—Near Ambarjik

the car up-hill, or to drag it out of ditches. Shortly before reaching Mutmur, we came to a mountain range where the rock formations ran parallel with the surface, so that the whole slope seemed to be covered with large stone slabs. In a gully appeared a number of caves exactly like the *abris* in southern France. The village of Mutmur itself is situated at the foot of a *kaleh* (Fig. 115), and not far from it too are natural caves.

To this point the "road" was halfway passable. From there on we tried until sunset to get across the last mountain range, behind which Arabkir is situated. Only 20 kilometers from Arabkir we had to stop for the night in the Kurdish village of Dishcherik, where, contrary to our previous experiences with these people, we were received with great hospitality. Until late at night Professor von Mészáros and myself were searching for a road over the mountains. The next morning, with much pushing and other hard work in almost unbearable heat,

we got our car up the slope and reached the Keban Maden–Arabkir highway. The distance between Arabkir and Malatia is only about 60 kilometers, but the actual road has to make a detour of over 200

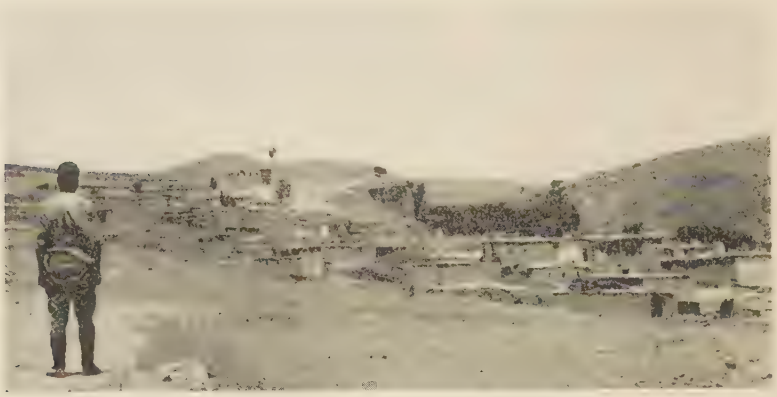


FIG. 115.—Mutmur

FIG. 116.—Ancient road from Arabkir to Eski Shehir

kilometers from Malatia over the Euphrates and back to Arabkir. From the ridge on which the highway runs I saw two *hüyüks* on its south slope, both near Pereli. In steep serpentines the road descends toward the narrow valley in which the town of Arabkir is situated.

FIG. 117.—Eski Shehir

FIG. 118.—Eski Shehir

We were awaited there with great anxiety, as Malatia had telegraphed the day of our departure for this town. Already three gendarme patrols had left to search for us. For the one night which we spent there, we were the guests of the governmental authorities, who were as usual very cordial.

Not very far from Arabkir, separated by a small but very steep and high mountain range (Fig. 116), lies Eski Shehir. Its valley (Fig. 117) is still smaller than that of Arabkir. Half the slope on both sides is covered with vineyards, gardens, and very old walnut trees. These almost cover the ruins of a Seljuk city—*jamis*, *türbehs*, *hans*, and *hammams* (Fig. 118). I was told that up the slope was a *yazili maghara*. So up I went for 400 meters on a grade of about 35°. The *yazili maghara* proved to be an ordinary Byzantine tomb without any writing. But I was at least a little rewarded by the beautiful view from the old Seljuk castle (Fig. 119). It is an awe-inspiring landscape—everywhere high rock masses dropping abruptly hundreds of meters; rivers like silvery bands in small gorges; at each side the jagged walls of rock that press in upon the tree-filled valley, from the dark green mass of which emerge a few white minarets. In a particularly steep cliff I noticed three caves which were surely inaccessible except with high ladders. Exhausted, back at Arabkir, I found that I had been invited to an official reception on account of aviation day. We retired very late that night, as the people could not do enough in showing us all sorts of courtesies.

Very early next morning we left Arabkir, winding up the north wall of the valley. After crossing with great difficulty three more mountain ranges, we went all the way down to the Euphrates, which here completely fills its deep and narrow valley. Along it a modern road, partly blasted into the rock, leads into the town of Egin (Figs. 120 and 121). Directly above Egin a mighty rock wall closes the valley still more, leaving a very narrow bed for the Euphrates as it emerges from a defile which it has entered at Divrighi. Egin itself, nestled among trees, clings to the south slope (Fig. 122). Its houses are all of wooden construction. The topographical situation of this settlement is the most remarkable which I have yet seen. With no outlet or inlet, the town lies on a slope which barely permits the cultivation of a few gardens. Notwithstanding this fact, an old road, barely

Fig. 119.—Eski Shehir as seen from the *kaleh*

FIG. 120.—The road from Arabkir to Egin

FIG. 121.—The Euphrates below Egin

FIG. 122.—Egin. No. 1 indicates the ancient site (p. 115); No. 2, the Küz Kalessi.

FIG. 123.—Egin. A *ziaret*

negotiable by even mule or donkey, zigzags up the steep north wall of the valley, in the general direction of Erzinjan. On the south slope a similar trail leads up to the torn plateau, the highest elevation of which is the Sari Chichek Dagh, and around this nearly impassable elevation to Divrighi. Egin must have been a very old settlement, founded for some special reason. I resolved to stop over here a few days and to investigate along these lines. As my program was originally to go to Divrighi and it was impossible to do so with our car, we had to send Hüssein with the *"arslan"* on a detour of over 600 kilometers in order to have him meet us about 45 kilometers farther west. We would then join him in Divrighi after making those 45 kilometers on foot and horseback.

During the three days of our stay in Egin I went around looking for the ancient settlement. A small Roman fortress on a rocky eminence not very high above the general valley level had already been noticed in coming from Arabkir. On the rocky slopes behind the hill, approximately 500 meters up, I investigated a few caves, which were all natural. The main feature of Egin is a very copious spring, its water as cold as ice, situated in the center of the town. Around it are grouped three mosques. Investigating them closely, I noticed that the oldest one, that closest to the spring itself, was erected on a much older foundation built with large, irregularly shaped bowlders. Nor far from here are two holy places still worshiped equally by Moslems and Christians. The first (Fig. 123) is a fair-sized niche in a large monolith up the hill a little behind the town. In the niche, half-covered with earth, appears a large rectangular block. The second, not very far from the first *ziaret*, consists of two rectangular blocks. In the whole town I could not find a single fragment of older wrought stones.

On the other side of the Euphrates, on a very high cliff directly facing Egin, I investigated a *kaleh* which proved to have wall remains from late classical as well as much earlier times (Figs. 124–28). I did not at all understand the reason for this fortress, since, though its situation rendered it absolutely impregnable, its defenders themselves were wholly isolated. They could of course survey the road along the eastward side as well as the road toward Erzinjan, but without having the slightest chance to close these roads in case of the approach of an enemy. On the main cliff, of which this fortress, called Küz Kalessi,

Fig. 124.—Küz Kalessi

Fig. 125.—The ascent to the Küz Kalessi with Ibrahim

FIG. 126

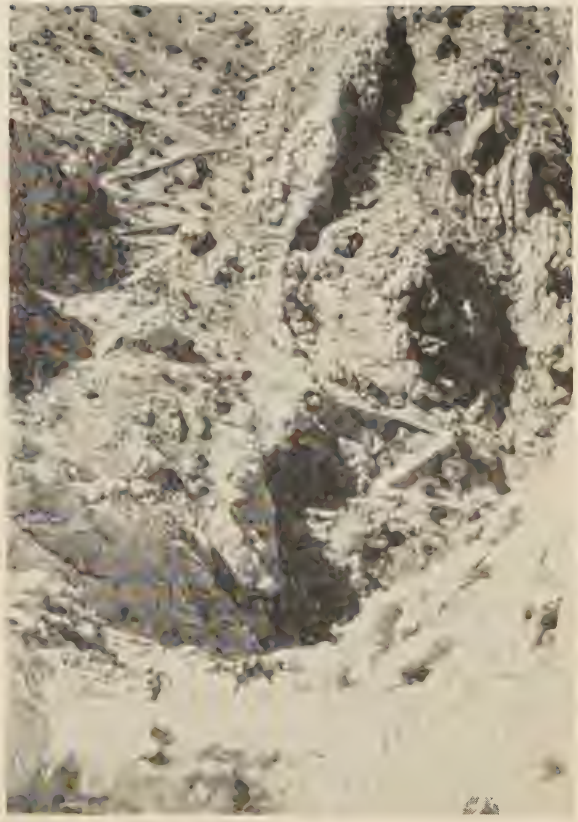


FIG. 127

FIGS. 126 and 127.—Views from the Küz Kalessi, showing impossibility of attack. Notice the zigzag road in Figure 127

Fig. 128.—View from the Küz Kalessi, showing impossibility of attack Notice zigzag road in background

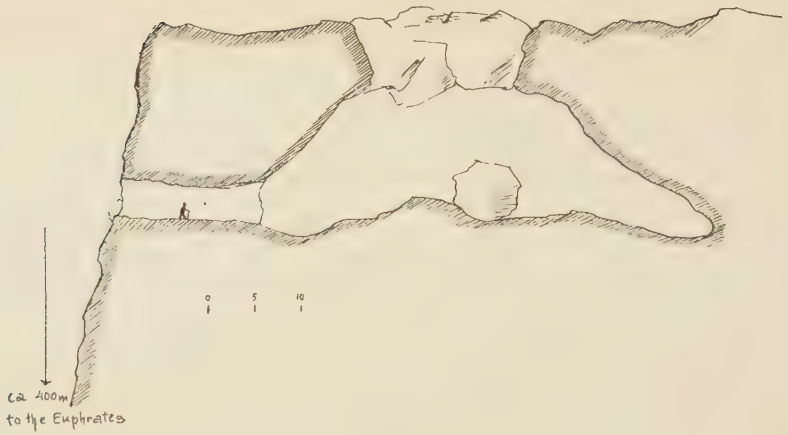


FIG. 129.—Sketch of the large cave in the city on the Shürzi Dagh

FIG. 130.—Road leading up the Sari Chichek Dagh to Divrighi

is a detached portion, I saw a few suspicious-looking formations. Going over to investigate, I found that this cliff fell away rather steeply on one side all the way down to the Euphrates, over 400 meters below. The two ends, of which the Küz Kalessi forms one, are equally steep. On the landward side there is a gentler slope toward a saddle between this cliff and the range behind it, over which the road leads northward. I even found remains of the wall, preserved in a few places in its original breadth of 2.50–3.00 meters, which shut off this cliff plateau from the saddle. In the middle of the walled-in site I found a large natural cave (30×40 meters, and 10 meters high) with its entrance, difficult and very dangerous to reach, on the steep slope toward the Euphrates (Fig. 129). Its roof is now caved in. To me there is no doubt that this is the preclassical site of Egin. It explains the otherwise incomprehensible position of the Küz Kalessi. The reason for its existence, I suppose, is religious, due to the presence of the extraordinarily copious spring and the large cave. But only further research and investigation can give a definite answer to this one of the many questions which turn up every year the farther our "knowledge" of Asia Minor progresses.

On July 27 we left Egin on horseback for Divrighi. The extremely difficult road seemed to follow an old trail (Fig. 130). Halfway to Divrighi we had to stay for the night on the high plateau (Fig. 131). In contrast to the unusually hot day, we could not cover ourselves sufficiently to give protection against the cold. Topographically this region is very interesting, but of course there are neither ancient nor modern settlements for miles and miles. We saw a few large groups of the black tents of the nomadic Kurds (Fig. 132). The next morning we started the descent toward Divrighi. We continued to go up and down over fairly steep mountain ranges until we reached the Yuru Chai, a rather large tributary of the western branch of the Euphrates (here called the Chalti Su) which joins the latter near the town shortly before the Euphrates enters the defile leading to Egin. Over the last two mountain ranges we followed the road by which Sultan Murad had tried to join Divrighi and Egin (Fig. 133). But even an absolute despot such as he was could not force a connection of Central Anatolia with the East at this place. After the first half of the distance from Divrighi, he had to give up in view of the enormous difficulties.

FIG. 131.—Our caravan on the Sari Chichek Dagh

FIG. 132.—Kurdish camp on the Sari Chichek Dagh

Fig. 133.—Sultan Murad's road

Fig. 134.—Divrighi. The *jami* and *medreseh*

Entering the valley at Divrighi, I felt immediately "at home" again. Landscape, people, and villages were once more like those around Alishar, and the absoluteness of the barrier between Central Anatolia and the East in every way I realized there to its fullest extent. Divrighi was an important city during the Seljuk period. Still standing there is one of the most beautiful *jamis* and *medresehs* of Asia Minor (Figs. 134 and 135). On a cliff sloping steeply down to the Euphrates rises the old Seljuk castle (Figs. 136 and 137). Facing it on the opposite side of the river, on a still steeper and higher cliff, are the remains of a far older fortress (Fig. 138), showing wall fragments built of huge bowlders set one above another without mortar. But for these, I did not see in Divrighi anything of special interest to me.

Far more interesting were the results of a two days' excursion southwestward on July 29–30. I went first up the broad and fairly fertile valley of the Yuru Chai. At Odur, 14 kilometers south of Divrighi, stands a Seljuk fortress built on an older foundation. A large basalt slab a little outside of the valley bears an odd-looking design (Fig. 139). The road then ascends steeply toward a very high mountain range (2,500 meters above sea-level), over which a path leads. Where this path enters a ravine leading up to the pass, near the village of Gödek, is a preclassical *kaleh*. On the crest of the range is a very large conical tumulus called the Baidir Ziaret. The natives ascribe to this place an especially great power of healing diseases. It is, of course, nothing but a survival of a very old mountain cult. We went down a gradually widening valley to Jevesli. We had made 35 kilometers under the greatest difficulties, mostly on foot, as the horses could scarcely follow the path at all. Through the kindness of the gendarmery commander of Divrighi, I was accompanied during the whole trip by a gendarme and furthermore from village to village by a *bekji*. They were splendid fellows, very polite and efficient.

Jevesli is a Turkish village, and I spent a very pleasant evening with the villagers. Unfortunately, I was unable to sleep more than five minutes during the whole night on account of other natives who came out of every corner and crevice of the guest room after my hosts had left. So I started out very tired the next morning at four o'clock, accompanied by a gendarme and a *bekji*, but leaving my horse in the

Fig. 135.—Divrighi Entrance to the *jami*

FIG. 136.—Divrighi. The Seljuk castle

FIG. 137.—Divrighi. View from the castle, looking down on the Euphrates

FIG. 138.—Divrighi. The two castles

FIG. 139.—Sculptured stone near Odur

FIG. 140.—Aghaya Kaleh

FIG. 141.—Aghaya Kaleh

village. After crossing another mountain range (2,220 meters) we reached the valley of a tributary of the Kangal Su at Bektash. I was received there most cordially by Iskender Efendi, a country nobleman like Zia Bey at Boghaz Köi, who gave me, besides an escort, a guide to Aghaya Kaleh, the goal of my excursion.

Aghaya Kaleh, 18 kilometers southeastward of Koch Köprüsü Kaleh, is situated like the latter on an isolated eminence with extremely steep slopes (Fig. 140). It dominates the extraordinarily fertile

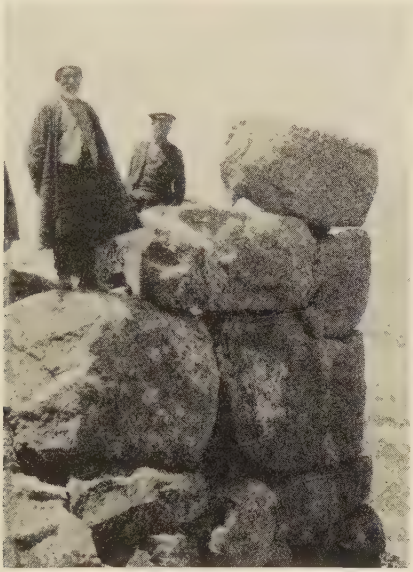


FIG. 142.—Aghaya Kaleh. Detail of the wall

valley of the Kangal Su and its tributaries in all directions. The *kaleh* itself is very remarkable. On the summit of the eminence are classical wall remains; but around the terrace from which the rocky main elevation rises are other wall remains, in some places preserved to a height of 4 or 5 meters, built of blocks sometimes 2 meters long, 1.80 meters broad, and 0.80 meters thick (Figs. 141 and 142). Carved in the native rock near this girdle wall is incised a Greco-Aramaic inscription. Our copy (Fig. 143) permits correction of some details in the text as previously published.[1] The diameter of this fortress is about 700 meters. From

[1] *Répertoire d'épigraphie sémitique*, Vol. II (1907–14), No. 954, with a bibliography.

FIG. 143.—Aghaya Kaleh. The inscription

Fig. 144.—Rock tomb at Aghaya Kaleh

the main elevation extends a promontory, on the plateau-like surface of which ancient building remains are to be seen. On its steep, nearly vertical rock slope appears a very well-executed cliff tomb with two pillar bases resembling those of Achaemenian tombs (Figs. 144 and

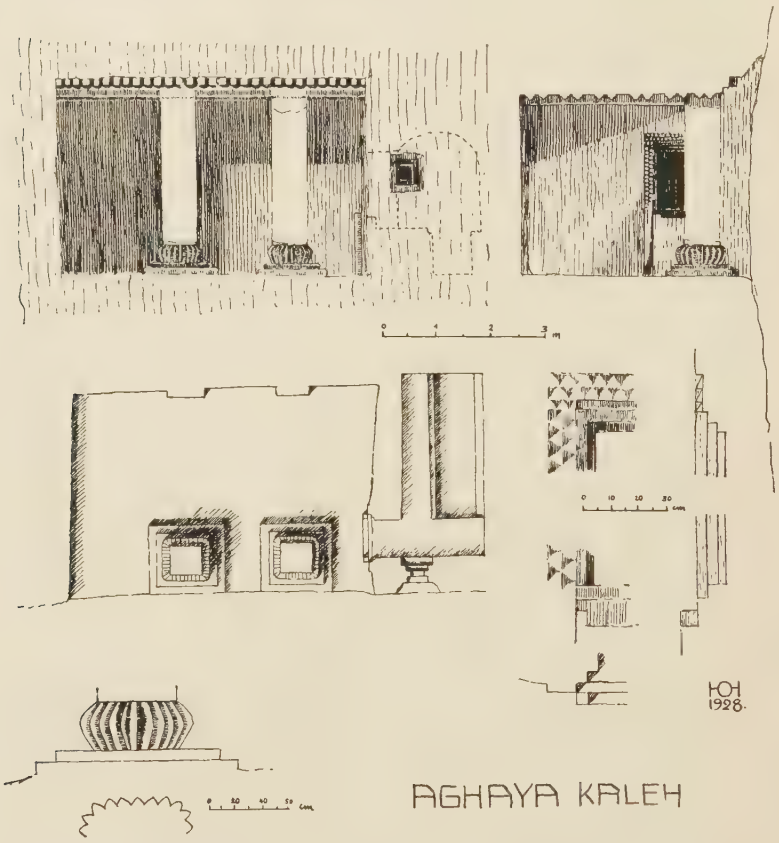


FIG. 145.—Rock tomb at Aghaya Kaleh. Sections, plan, and details

145). Not far from it the rock had been prepared for another inscription, which was never cut. The inscription of Figure 143 was discovered in 1900, but the walls and the tomb had seemingly not been observed before. There seems no doubt that the walls built of large bowlders are much older than the inscription and the tomb, which undoubtedly belong together. This castle formed the connecting link

in a 100-kilometer chain of eleven castles which I had succeeded in locating along the southern and southeastern borders of Central Anatolia, extending from the Kara Seki Yazi to the Euphrates. Such a sequence can scarcely be accidental. The importance of this frontier must reach back to the earliest times. The trip back to Divrighi was very exhausting; I had made 52 kilometers, crossing three mighty mountain ranges over 2,000 meters in height and with a drop of about 700 meters into each valley. I reached the city at half past three the next morning.

We left Divrighi that same morning (July 31) with a hired car which the kindness of the gendarmery commander had ordered for us from Sivas, as we had received the disappointing news that our "*arslan*" was undergoing a rather elaborate cure. The road is very interesting, leading first along the picturesque valley of the Euphrates, then winding boldly up the mighty mountain complex of Kara Bel, which forms the watershed between the Euphrates and Küzül Irmak basins, the latter leading to the Black Sea, the former far southeastward to the Indian Ocean. On this road is situated the village of Zinjan, where Battal Ghazi is buried within a *türbeh* in which is still preserved the flag which he carried personally while leading his troops in the assault which finally conquered Divrighi. I was told that in a lateral valley farther westward near Kamur there was a group of rock carvings to be reached only on foot, but I was unable to investigate them. Toward sunset we were lucky enough to reach Zara on the Küzül Irmak. Our rented car proved to be in a condition far worse than that of our own "*arslan*" after the leap from Malatia to Arabkir, so we were not able to reach Sivas until very late at night. There we were anxiously awaited by our Hüssein, as we were forty-eight hours behind our schedule.

We had to begin August with two rest days, for I needed medical attention due to heart trouble resulting from the exhaustive excursion to Aghaya Kaleh. On August 2 we finally started northeastward from Sivas. We followed first the Küzül Irmak valley to Zara. I could not find at Koch Hissar any preclassical remains such as its name had led me to expect. At Zara a few remarkable Moslem graves showed on the main slab incised representations of human beings and horses. In Zara, where we stopped for lunch, we met the engineer Ertl, of the

FIG. 146.—On the Zara–Su Shehri road

FIG. 147.—Near Shebin Kara Hissar

FIG. 148.—Crossing the Kelkid Irmak

FIG. 149.—The castle at Shebin Kara Hissar

governmental railroad construction bureau. He had just returned from a survey of the region between Sivas and Erzinjan. We had been guests of his wife and himself in 1926 when he was building the Yerköi-Kaisariyeh railroad at Stambulolu. From Zara we went northward, crossing many mountain ranges (Fig. 146), many of them covered with real pine trees, to Su Shehri. It lies at the southern border of the very broad and extremely fertile Kelkid Irmak valley. Very few modern settlements were seen between Zara and Su Shehri, and I could not find any ancient ones.

From Su Shehri we started the next morning for Shebin Kara Hissar, situated already in the mountains whose northern spurs form the Black Sea coast. The region between these two towns had been investigated with the utmost care by Professor F. Cumont.[1] He had surveyed the classical remains in the few villages of this valley, mostly pieces brought from the classical city of Nikopolis, not very far from Su Shehri. It is remarkable that all along this fertile valley, which leads up to Erbaa, very few modern and no preclassical settlements at all could be found. A few rather large classical sites are dispersed on its north and south borders. As usual, we avoided the main road to Shebin Kara Hissar; and we tried to ford the Kelkid Irmak, as it seemed not to be very deep (Fig. 147). But we were out of luck; for it took us one hour to push our car out, getting ourselves wet to the thighs (Fig. 148). But the sun was very strong, and before reaching Shebin Kara Hissar (Fig. 149) we were all dry again.

The same afternoon I made an excursion to several iron and silver mines in the neighborhood. They are merely holes in the rock, as the ore lies very near the surface (Figs. 150 and 151). No mines are being worked at this time, as the Greeks and Armenians who had owned most of them are gone. Since this rich mineral region had been exploited continuously from prehistoric times down to about twenty-five years ago, all ancient traces have of course disappeared. This whole northeastern region of Asia Minor is especially deserving of exploration. Aside from its southern border along the Kelkid Irmak from Niksar to Shebin Kara Hissar and its northern border along the Black Sea coast, it is, from the archaeological point of view, practically a *terra incognita*. From natives we heard that a number of *kalehs* with

[1] Cf. *Studia Pontica*, II, 304.

cyclopean walls were scattered among the mountain ranges. There, too, is the homeland of the Lazis, of whom Professor von Mészáros

FIG. 150.—Road from Shebin Kara Hissar to Kerasund, along which numerous alum, silver, and iron mines are situated.

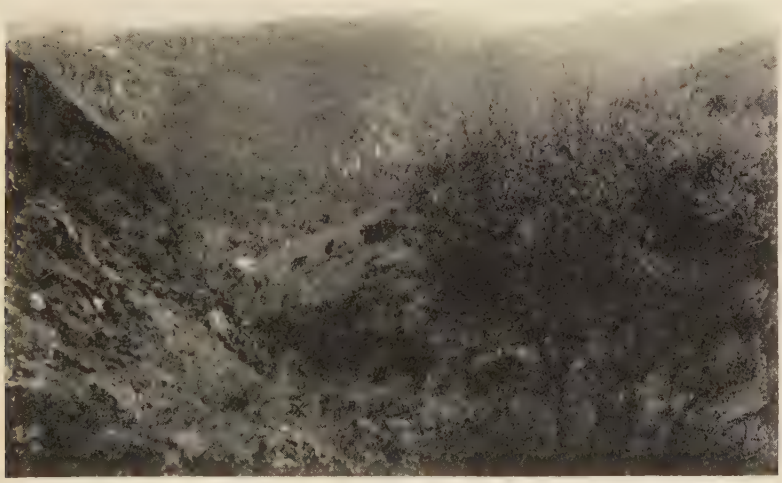


FIG. 151.—Valley with silver mines near Arpasli

informed me that they are probably a remnant of the oldest population of Asia Minor. They are ethnologically almost unknown.

From Shebin Kara Hissar we decided to follow the Kelkid Irmak valley (Fig. 152) westward to Köilü Hissar, where stands a remarkable old castle near which we stayed that night. On our way to Niksar the next day (August 5), we passed another *kaleh*, Ashare Kaleh. At its foot are the ruins of a large Seljuk *han* and a *jami*. Noteworthy here are the bridges which had been already noticed by F. Cumont, consisting of two stone piers in which tree trunks of gradually increasing length are imbedded to form a sort of vault (Fig. 153). The walled-in trunks are additionally secured by crosswise timbers. From this point on to the plain of Niksar, the valley is narrow and its borders are covered with scrub or sometimes with real pine woods. Shortly before Niksar the valley widens into a fertile plain with rich pastures and gardens. Tobacco is the principal crop in this section, and I saw long caravans of donkeys and camels carrying this product to Niksar.

In Niksar we stayed for only a few hours before continuing our journey to Tokat. We took the same road which I had taken in 1926.[1] Conspicuous in this region is the almost complete absence of ancient remains. Only in the plain a few kilometers northeast of Tokat lies Comana Pontica, surely a very old sanctuary and preclassical settlement. Yet this whole region is much more fertile than most of the Central Anatolian plateau, which the visible remains, chiefly *hüyüks*, show to have been densely populated in ancient times. The only explanation for this is that the Kelkid Irmak valley, in contrast to most of the plateau, was populated by nomadic peoples until the classical period, when the Romans pacified this region and built cities in it. The lines of *kalehs* along the Kelkid Irmak were strongholds of the temporarily ruling groups, established to watch the movements of the nomads in the neighborhood and to protect the mining region farther in the interior. It is very much to be hoped that we may be able soon to extend our investigations into this territory, which is of course very difficult to traverse.

In Tokat we stayed one day to rest and to have some minor repairs made on our car. On August 7 we left very early, hoping to reach Alishar that night. We followed southward the road leading past Horosh Tepessi, visited in 1926,[2] toward Yeni Han. In many zigzags we climbed the slope of the Chamli Bel (Fig. 154), the large mountain

[1] *OIC*, No. 2, p. 63.

[2] *OIP*, V,127 ff.

region where Turkish folk-lore puts the home of the famous brigand, Kör Oghlu. The story goes that to avenge his father, who had been

FIG. 152.—The Kelkid Irmak valley

FIG. 153.—Bridge over the Kelkid Irmak

blinded by the sultan, he went up into the Chamli Bel and there plundered all the rich caravans as they moved under government protection along the only road that leads across this rugged range, fighting the soldiers whom the sultan sent against him. Finally he captured a young lady who through her purity made such an impression upon him that he married her and renounced his brigand life. To this day he is said to be living with her a retired life in a hidden castle. The descent toward Yeni Han is very steep. In the valleys on this side of the range live many Cherkess, all *muhajirs* from the Caucasus region. Near Yeni Han I saw a very large *hüyük* on a rocky elevation in the broad valley surrounding this important town (Fig. 155). Here the caravan roads from Yozgad, Sivas, and Kaisariyeh meet, as it is the starting-point of one of the oldest roads to the Black Sea coast.

FIG. 154.—On the Chamli Bel with Professor von Mészáros.

After turning westward toward the Ak Dagh complex (Fig. 156), the road became worse and worse, and only with the greatest difficulty did we reach the summit of the pass. The descent was still worse. And then with a sudden jerk the "*arslan*" stopped in a deep ditch. Soon we realized that this time the trouble was serious. There was no village in the neighborhood. With the help of two shepherds we finally succeeded in pushing our car 2 kilometers to a group of Kurdish tents. There Professor von Mészáros cooked for us over an open fire some salted mutton with onions, bought from the Kurds (Fig. 157).

The next morning Hüssein and I started to take out the motor. Loose screws had fallen off, and one of the magnets of the flywheel magneto had worked loose, which was not so surprising after all our car had gone over and through. Furthermore, the broken pieces had damaged the whole magneto assembly so badly that to make repairs on the road, and without proper spare parts, was utterly impossible.

We continued, therefore, on our way by running on the battery alone. Its run-down condition necessitated our pushing the car most of the way. It was completely dark when we reached a spot not 30 kilometers from our camp. But there we had to stop, as our lights would not burn and the road dipped steeply toward the plain in which Alishar is situated. In any event, we were too exhausted from this "ride," for we had traveled thus since noon. Everyone crawled somewhere near the car or under it. Then, to complete the disagreeable situation, rain

Fig. 155.—The *hüyük* near Yeni Han

started pouring down at midnight and continued until around six in the morning.

After we had stuffed an inner tube with straw gathered more or less illegally from a near-by wheat field, we reached our camp toward ten o'clock in the forenoon. The camp was almost empty. Only Mr. Scharer and two workmen were there, as Dr. Schmidt had moved up to the Kerkenes Dagh two days previously to make a trial excavation of its extensive city site. I scarcely recognized the main mound of our *hüyük*. Two thirds of the 6 meters of débris above the citadel wall had disappeared, and the citadel wall itself had been cleared all around. The same afternoon I started out on horseback to ride the 35 kilometers to the Kerkenes Dagh. However, halfway there Mr. von Brand overtook me with our second car. He had come down from the Kerkenes Dagh for some supplies, and I had missed him, as the time

of his arrival was not known in advance. That same evening Dr. Schmidt, Mr. Martin, and Mr. Reifenmüller came back from Ankara,

FIG. 156.—A cliff tomb near Ak Dagh Maden

FIG. 157.—Camp at the last breakdown of our "*arslan*"

where they had spent a few days in arranging our finds of last year (Figs. 158 and 159). A hall for this purpose in the Ethnological Museum had been given us by the Turkish government. So after five

weeks, which seemed to me more like five months, our expedition was re-united. After the test at the Kerkenes Dagh had been completed, we all moved down to Alishar again. On August 26 we closed the actual excavation work there for 1928.

Reviewing the work of the first three seasons of our Hittite expedition, two extensive explorations have been conducted, one excavation approximately half-finished, a test excavation carried through, and the detailed survey of one section completed. The two explorations,

Fig. 158.—Alishar finds installed in the museum at Ankara

besides discovering and investigating numberless ancient sites, have resulted in a clear orientation of the ancient distribution of settlements in Central Asia Minor. East of Boghaz Köi it proved extremely dense, decreasing northward. Connected with this large group was found a second, not quite as important, between Ankara and Kirshehir. In the north no ancient settlements were found except a double line of *kalehs*, one line extending through Amasia and Tokat in both directions, the other along the Kelkid Irmäk. Especially during the second exploration the mountain ranges bounding this territory on the east and southeast were investigated, and a line of *kalehs* running parallel to this natural frontier was encountered. Several smaller groups of settlements within this line were found, and one settlement

group east of this district was investigated. Three of the sites examined during 1928 were selected as especially desirable for future excavation. They are Hawus Köi, Arslan Tepe, and the large *hüyük* near Malatia Chiftlik.

Our first season's excavation showed that the chosen mound of Alishar had been occupied during practically all the different cultural

FIG. 159.—Alishar pottery installed in the museum at Ankara

and historical periods of Asia Minor. It provided a reliable relative chronology for pottery from early Turkish times back to the "Hittite" period. We know already of at least two still earlier periods. The further slicing of our mound, level by level, will perhaps permit closer subdivisions. To the present time we have only two approximate absolute dates for our chronology: the late classical period, from the first to the sixth century A.D., and the Hittite period, ending

between 1200 and 1000 B.C. A certain type of our local Period III pottery could be associated definitely with the "Hittite" hieroglyphs. All the other small objects, as well as the building remains, are, of course, relatively dated by their associations with the pottery. Part of this pottery is, even artistically, of high value. The season of 1927 provided us with a series of skeletons also, which may ultimately enlighten us as to the racial connections of the people who occupied our mound during the first three periods.

The trial excavation of 1928 at the large Kerkenes Dagh city has shown no proof that it was ever inhabited by "Hittites," but of course no more definite statement is possible without a more intensive test. The extremely careful and conscientious excavation of some fourteen trial trenches has revealed only a culture which comes between the "Hittite" and the classical periods at Alishar. No clue was found as to who the people were who built this city in Central Asia Minor, a city larger then Boghaz Köi.

The survey has given us an idea of the dense population of this region in ancient times. All the *hüyüks* prove, by comparison of the pottery fragments collected on them with the pottery from our mound, to have been settled by the people of our local "Hittite" and pre-"Hittite" periods. Near Karga, Mr. Blackburn found a "Hittite" hieroglyphic inscription (Fig. 160). Besides this, three large classical settlements have been found and a great number of inscriptions of the same period collected, which will furnish valuable additions to our knowledge of the cultural history of this area.

Two guests whom we had the pleasure of having with us for several weeks made special investigations in their respective fields. Professor von Mészáros studied thoroughly the ethnology of the natives, with special reference to survivals of ancient culture. Dr. Forsteneichner, of the School of Phytopathological Institute in Ankara, made a complete botanical survey and studied the territory especially for the possible presence of forests in ancient times. Both of these gentlemen have made reports which will be published later.

These investigations as a whole—the explorations, the excavations, and the survey—have given us the basis which was so essential for a continuation of our research work. We have taken a big step

toward the solution of the main question: What are the Hittites in an archaeological sense?

FIG. 160.—Inscription found near Karga

The *hüyüks* and mighty mountain *kalehs* still defend the secret of their ancient masters' culture as defiantly as they once defended those

masters and their culture thousands of years ago against the assaults of "barbaric" peoples. They had been overrun finally. Our culture too is "barbaric," compared to the old oriental cultures. But our aim is different from that of the destroyers. We are not seeking to subdue the Hittites, or to win easy spoil and perishable goods! Our aim is to revive the spirit and the culture of these people and to win thereby a more profound understanding of our own civilization.

CHAPTER IV

ITINERARIES

1927

		Kilometers[1]
June 17.	Alishar—Abujak—Selimli—Burun Küshlar—Sari Kaya—Parasli—Boghazlayan—Chalab Verdi—Yoghun Hissar—Chiftlik—Chokum Eshme—Terzili Hammam—Karayap—Alishar	
Aug. 26.	Alishar—Tuzlajik—Inevi—Sölemes—Karayap—Chikrikche—Kochas—Küchük Chalaa—Kara Maghara—Peik—Salir—Sungur—Hosman—Alishar.....	
Sept. 10.	Alishar—Karayap—Chikrikche—Meshidli—Gündüslü—Asap Bashli—Djelal—Hasbeg—Karayap—Alishar.....	
Sept. 28.	Alishar—Karayap—Terzili Hammam—Kaya Punar—Babayamur—Khorkadan—Cha'ir Shehir—Khorkadan—Boyalik—Kongurlu—Meles—Terzili Hammam—Terzili—Alishar	

1928

A

June 9.	Alishar—Karaveli—Ojakli—Kerpije—Sari Hamzali—Kürd Köi—Enshmend Chiftlik—Köhne—Inje Cha'ir—Chalatli—Yozgad—Dervent Köi—Boghaz Köi.....	78
June 10.	Boghaz Köi—Yükbash—Kaimar—Hüyük (near Aladja)—Küz Karaja—Aladja—Arabsefer—Köhne—Sari Hamzali—Karaveli—Alishar..	174
June 19–22.	Alishar—Kochas—Chikrikche—Doghanli—Kongurlu—Terzili Hammam—Karayap—Alishar.....	68

[1] The first of the two columns shows kilometers covered by automobile; the second, kilometers covered on foot or horseback.

B

			Kilometers	
July	1.	Alishar—Karayap—Terzili Hammam—Kaya Punar—Babayamur—Khorkadan—Cha'ir Shehir—Kainar Punar—Arpa Özü	85	8
July	2.	Arpa Özü—Sari Kaya—Erye—Tekmen—Kara Özü—Burun Ören—Sari Olan—Gemerek—Kara Göl—Shark Küshlar—Sivas	284	14
July	3.	Sivas—Hosh Kadem Mevskii—Sivas	12	
July	4.	Sivas—Kilchidik Hüyük—Gauraz—Sivas—Tauraz—Sivas	58	
July	5.	Sivas		
July	6.	Sivas—Sefik—Külük—Üch Tepeler	38	
July	7.	Üch Tepeler—Besh Tepeler—Eski Olan—Hafik Kalessi—Üch Tepeler		25
July	8.	Üch Tepeler—Eski Olan—Tutmash—Ulash—Imamün Damü—Takhtali—Halep Köprüsü—Khomarlü	74	7
July	9.	Khomarlü—Hawus Köi—Musir Ören—Manjolik—Ölir Delik—Tashli Hüyük—Gürün	69	5
July	10.	Gürün; excursion to the inscriptions and caves		14
July	11.	Gürün; excursion to the south border of the "oasis"		28
July	12.	Gürün—Telin—Gürün—Küzül Ören—Dawul Hüyük—Hüyüklü—Behadiyeh—Yilan Hüyük—Tashli Hüyük—Ölir Delik—Manjolik—Kangal	145	
July	13.	Kangal—Kavak—Timur—Gürün Bekir—Sari Kadi—Maksütlü—Koch Köprüsü Kaleh—Kem Almas—Kangal—Sagil—Aladja Han—Hassan Chelebi	125	
July	14.	Hassan Chelebi—Kara Kavak—Bashgenik—Yapma Göl—Mal Tepe—Hassan Chelebi—Hekim Han—Fethiyeh—Eski Shehir (Melitene)—Malatia	105	22
July	15.	Malatia		
July	16.	Malatia—Ordüzü—Arslan Tepe—Malatia		19

			Kilometers	
July	17.	Malatia—Eski Shehir—Telbin—Toprak Tepe—Samam Köyü—Malatia	52	5
July	18.	Malatia—Ismet Pasha Köyü—Gündüslü—Atmalü Deressi — Malatia Chiftlik — Pirot — Khumur Han—Malatia	145	16
July	19.	Malatia—Eski Shehir—Malatia Chiftlik—Mamur	35	18
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SUMMARY

A.	320 km.	0 km.
B.	2,376 km.	447 km.
	2,696 km.	447 km.

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efendi, gentleman, master
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hammam, (hot) bath
han, inn
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hawus, fountain
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inshallah, if God will
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küshlar, armory; winter quarters
küz, maiden
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maghara, cave
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oghlu (>*olu*), son
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